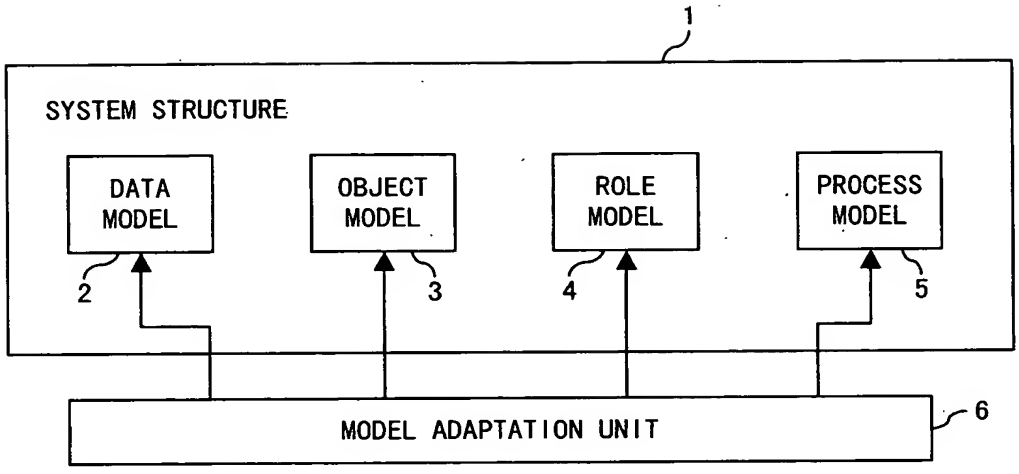

1
SYSTEM STRUCTURE
DATA MODEL
OBJECT MODEL
ROLE MODEL
PROCESS MODEL
2
3
4
5
MODEL ADAPTATION UNIT
6

FIG. 1

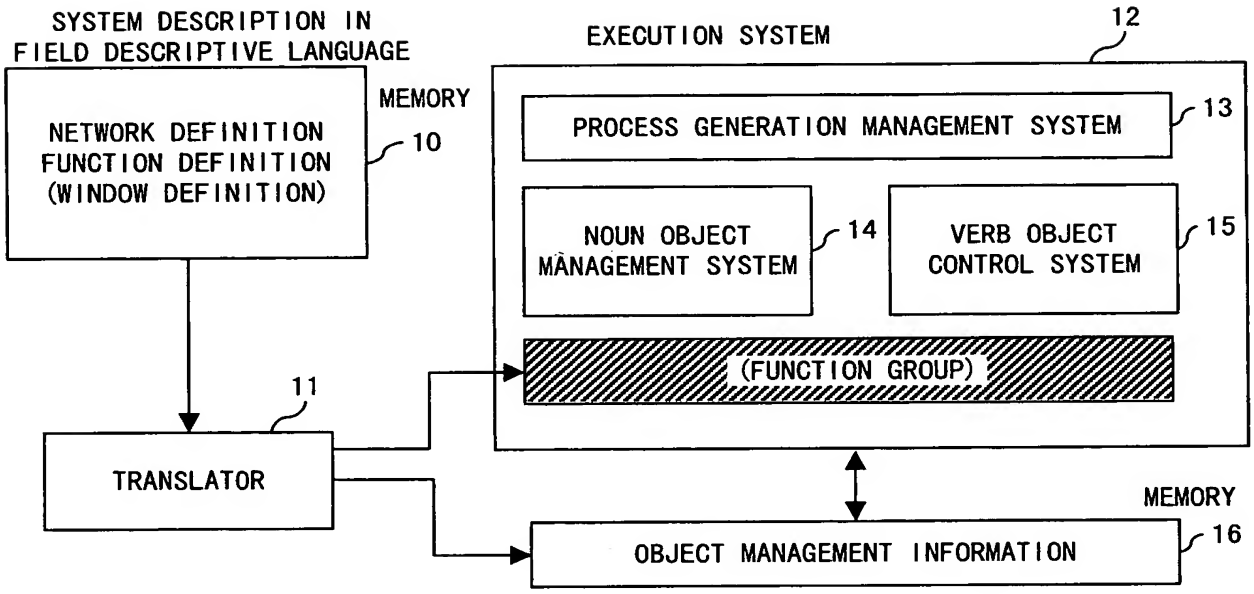

SYSTEM DESCRIPTION IN
FIELD DESCRIPTIVE LANGUAGE
NETWORK DEFINITION
FUNCTION DEFINITION
(WINDOW DEFINITION)
MEMORY
10
11
TRANSLATOR
EXECUTION SYSTEM
12
PROCESS GENERATION MANAGEMENT SYSTEM
13
NOUN OBJECT
MANAGEMENT SYSTEM
14
VERB OBJECT
CONTROL SYSTEM
15
(FUNCTION GROUP)
MEMORY
OBJECT MANAGEMENT INFORMATION
16

FIG. 2

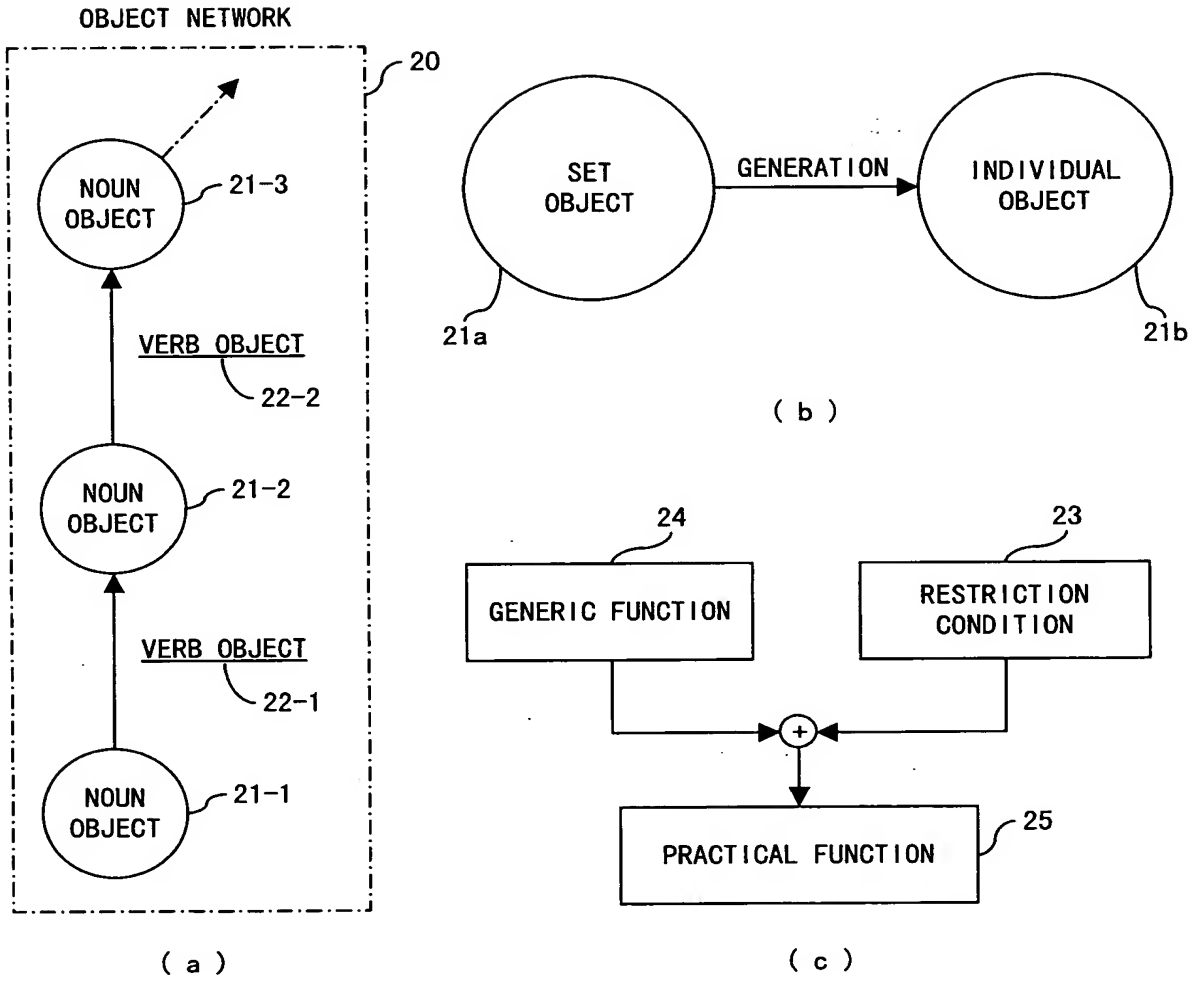
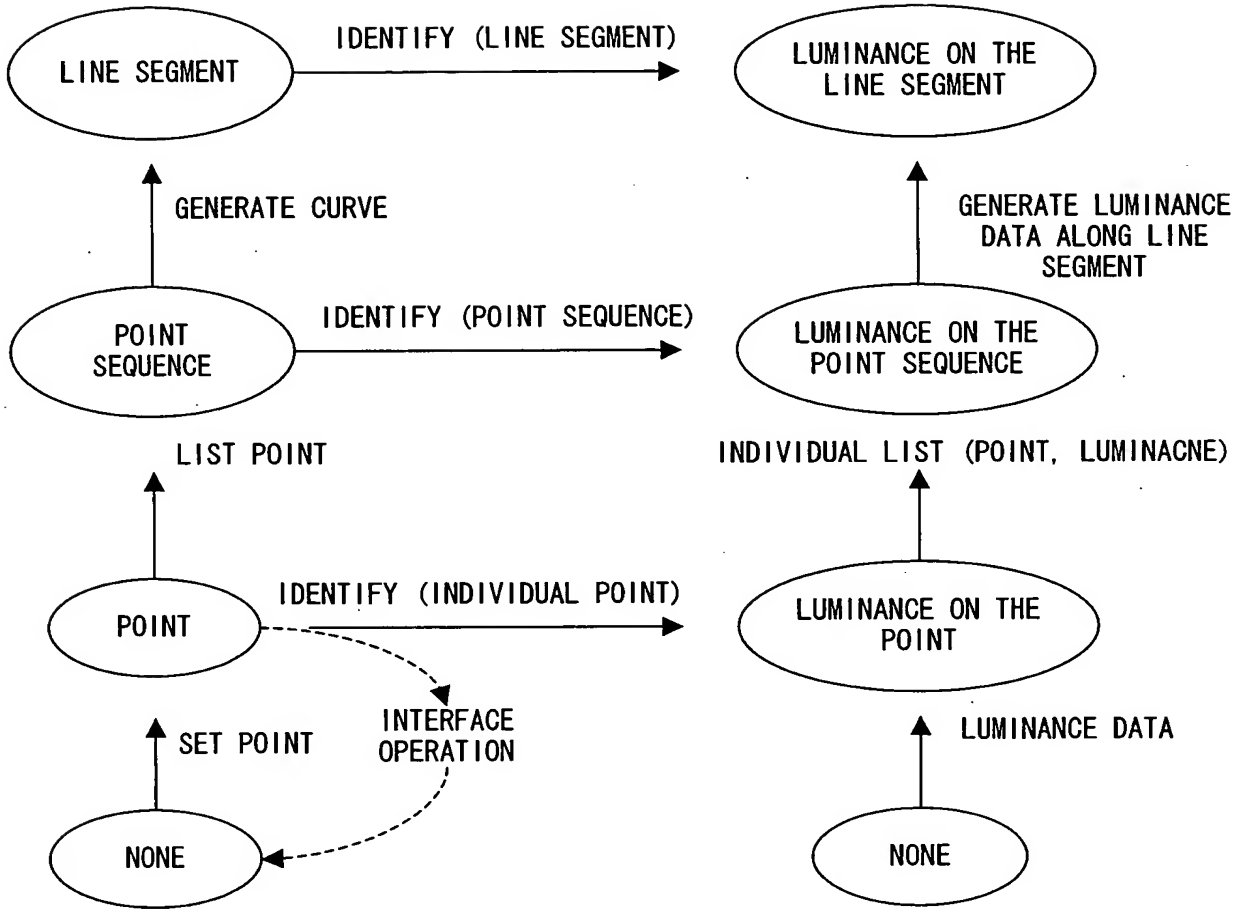
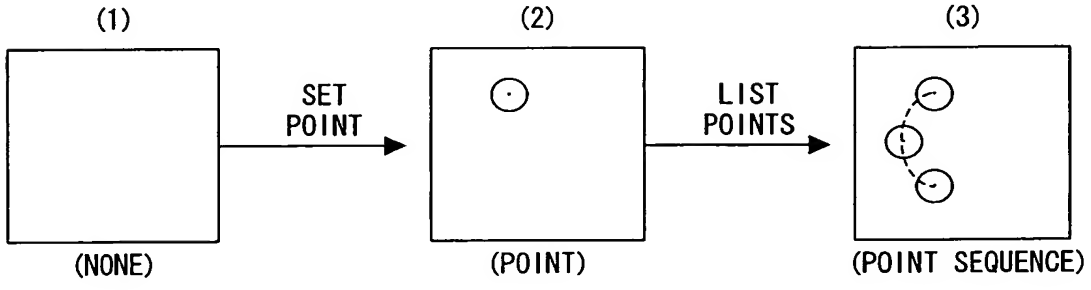

OBJECT NETWORK
20
NOUN OBJECT
21-3
VERB OBJECT
22-2
NOUN OBJECT
21-2
VERB OBJECT
22-1
NOUN OBJECT
21-1
(a)
SET OBJECT
GENERATION
INDIVIDUAL OBJECT
21a
21b
(b)
24
GENERIC FUNCTION
23
RESTRICTION CONDITION
+
PRACTICAL FUNCTION
25
(c)

FIG. 3


LINE SEGMENT
IDENTIFY (LINE SEGMENT)
LUMINANCE ON THE LINE SEGMENT
GENERATE CURVE
GENERATE LUMINANCE DATA ALONG LINE SEGMENT
POINT SEQUENCE
IDENTIFY (POINT SEQUENCE)
LUMINANCE ON THE POINT SEQUENCE
LIST POINT
INDIVIDUAL LIST (POINT, LUMINACNE)
POINT
IDENTIFY (INDIVIDUAL POINT)
LUMINANCE ON THE POINT
SET POINT
INTERFACE OPERATION
LUMINANCE DATA
NONE
NONE

(a)


(1)
(2)
(3)
SET POINT
LIST POINTS
(NONE)
(POINT)
(POINT SEQUENCE)

(b)

F I G. 4

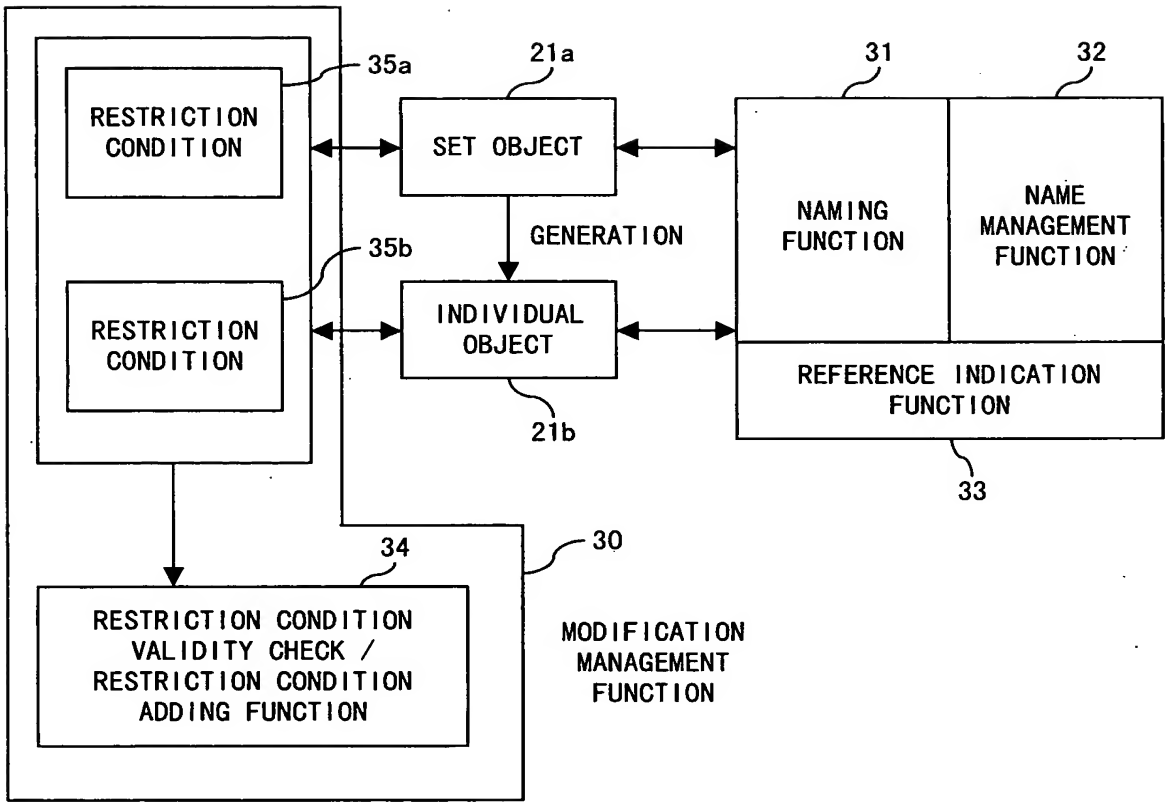

RESTRICTION CONDITION
35a
RESTRICTION CONDITION
35b
21a
SET OBJECT
GENERATION
INDIVIDUAL OBJECT
21b
31
32
NAMING FUNCTION
NAME MANAGEMENT FUNCTION
REFERENCE INDICATION FUNCTION
33
34
RESTRICTION CONDITION VALIDITY CHECK / RESTRICTION CONDITION ADDING FUNCTION
30
MODIFICATION MANAGEMENT FUNCTION

FIG. 5

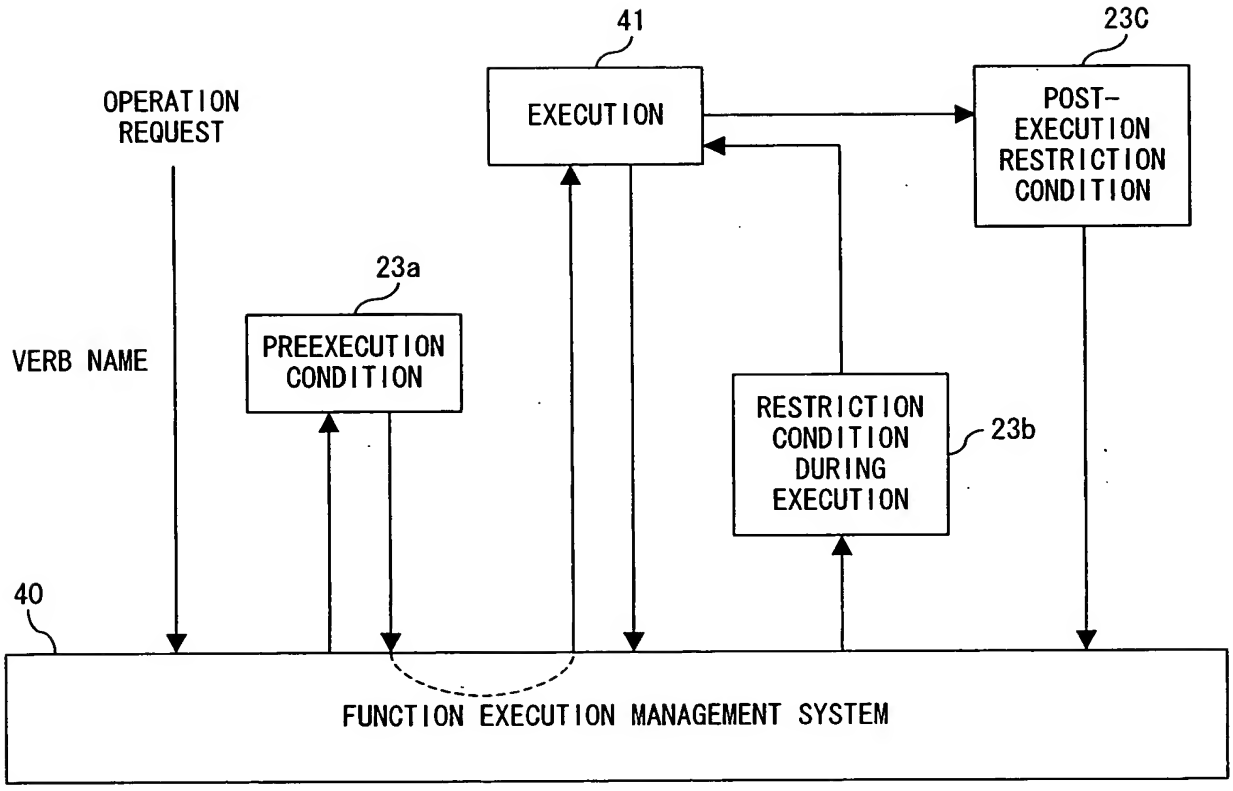

41
23C
OPERATION REQUEST
EXECUTION
POST-EXECUTION RESTRICTION CONDITION
23a
VERB NAME
PREEXECUTION CONDITION
RESTRICTION CONDITION DURING EXECUTION
23b
40
FUNCTION EXECUTION MANAGEMENT SYSTEM

FIG. 6

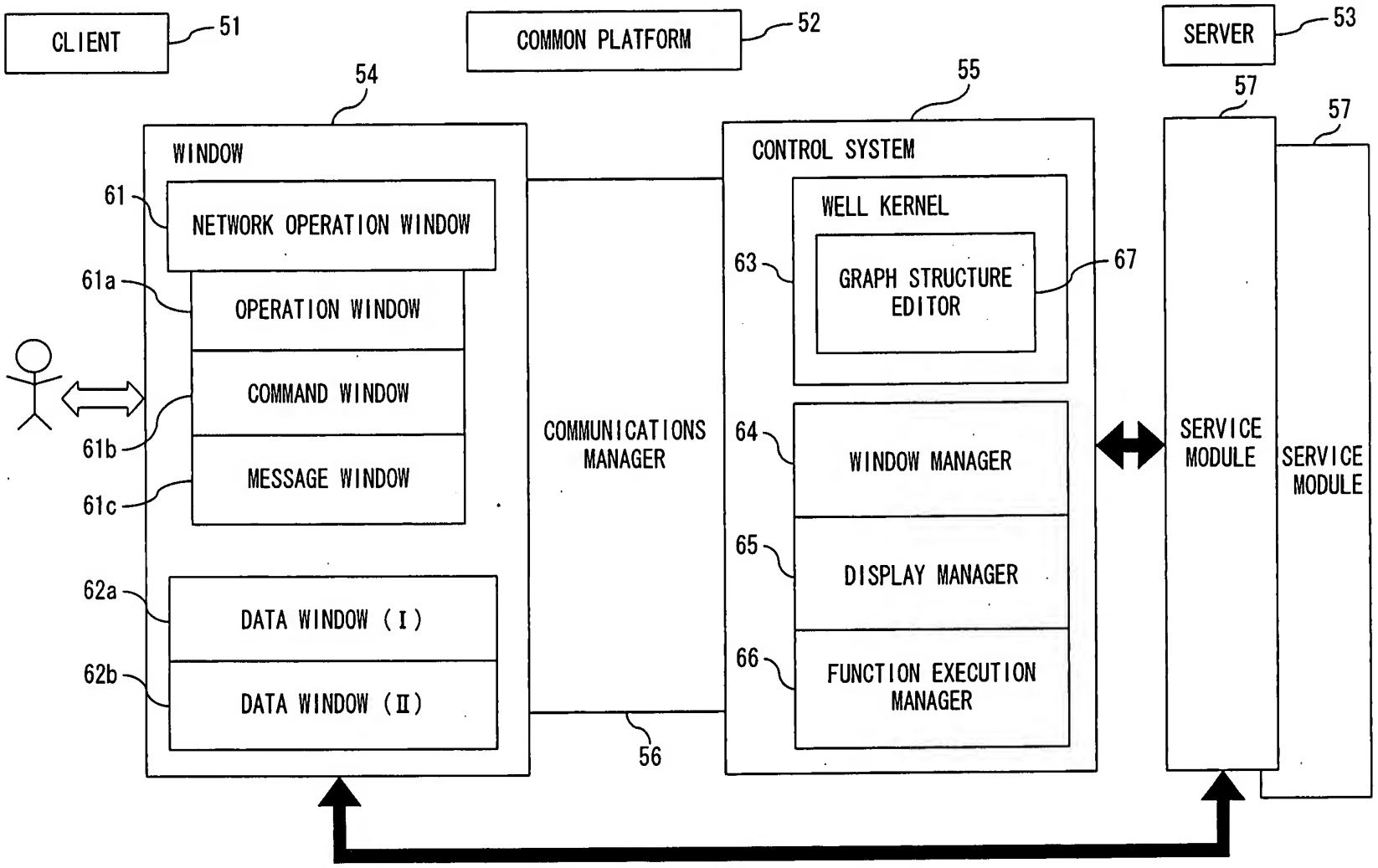

CLIENT
51
COMMON PLATFORM
52
SERVER
53
54
55
57
57
WINDOW
CONTROL SYSTEM
61
NETWORK OPERATION WINDOW
WELL KERNEL
63
GRAPH STRUCTURE EDITOR
67
61a
OPERATION WINDOW
COMMAND WINDOW
61b
MESSAGE WINDOW
61c
COMMUNICATIONS MANAGER
64
WINDOW MANAGER
SERVICE MODULE
SERVICE MODULE
65
DISPLAY MANAGER
62a
DATA WINDOW (I)
62b
DATA WINDOW (II)
66
FUNCTION EXECUTION MANAGER
56

FIG. 7

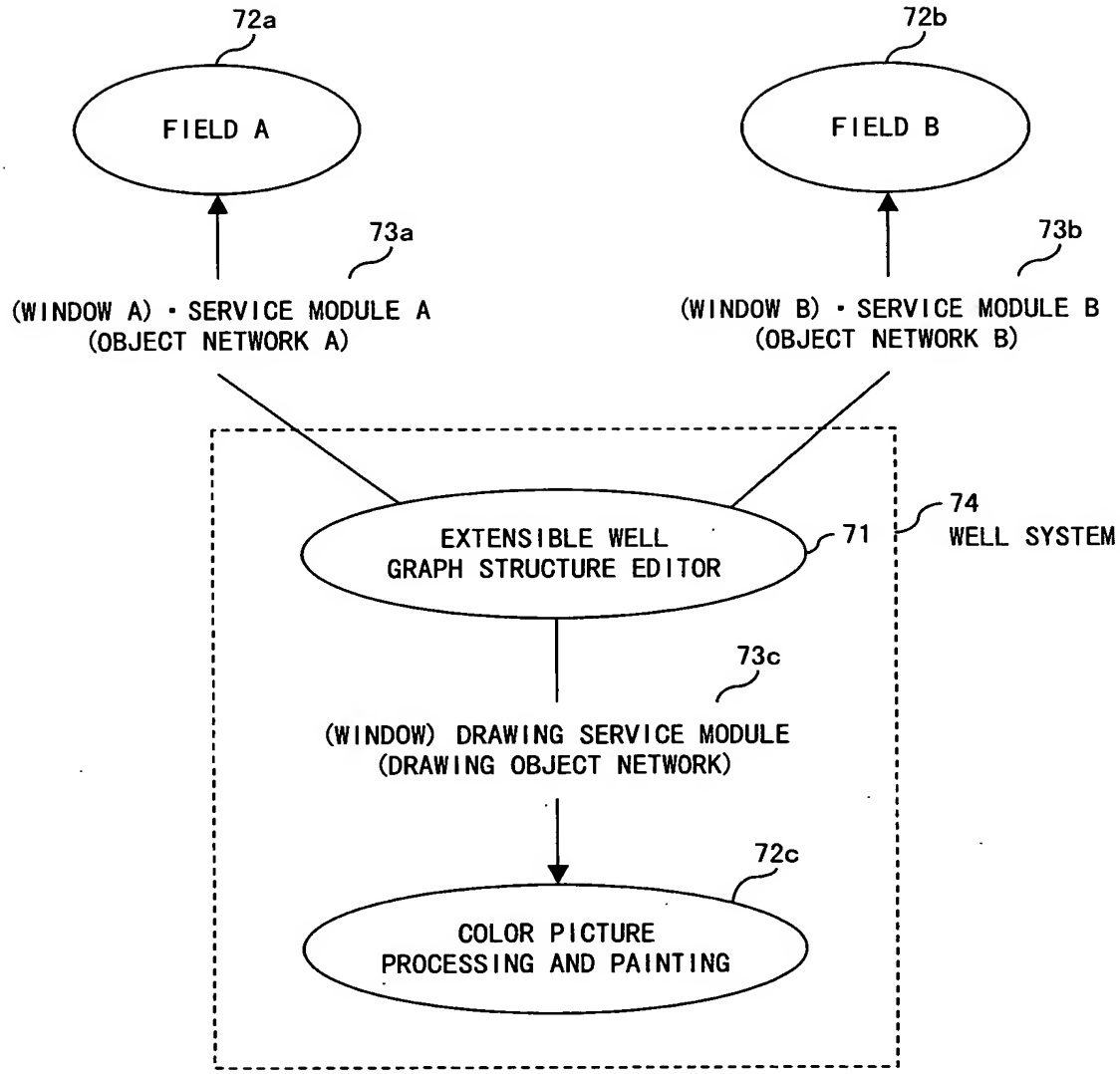
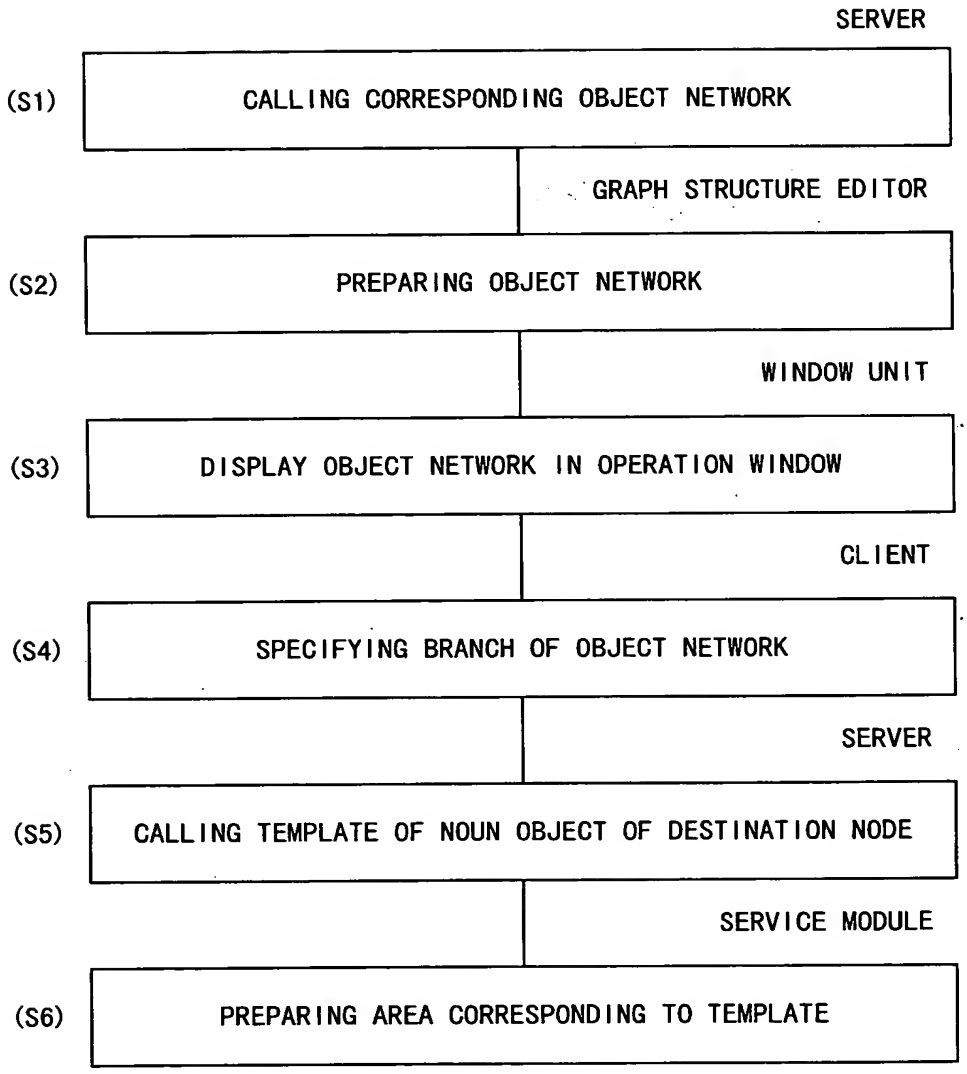

72a
FIELD A
72b
FIELD B
73a
(WINDOW A) · SERVICE MODULE A
(OBJECT NETWORK A)
73b
(WINDOW B) · SERVICE MODULE B
(OBJECT NETWORK B)
EXTENSIBLE WELL
GRAPH STRUCTURE EDITOR
71
74
WELL SYSTEM
73c
(WINDOW) DRAWING SERVICE MODULE
(DRAWING OBJECT NETWORK)
72c
COLOR PICTURE
PROCESSING AND PAINTING

FIG. 8


SERVER
(S1)
CALLING CORRESPONDING OBJECT NETWORK
GRAPH STRUCTURE EDITOR
(S2)
PREPARING OBJECT NETWORK
WINDOW UNIT
(S3)
DISPLAY OBJECT NETWORK IN OPERATION WINDOW
CLIENT
(S4)
SPECIFYING BRANCH OF OBJECT NETWORK
SERVER
(S5)
CALLING TEMPLATE OF NOUN OBJECT OF DESTINATION NODE
SERVICE MODULE
(S6)
PREPARING AREA CORRESPONDING TO TEMPLATE

(A)

FIG. 9

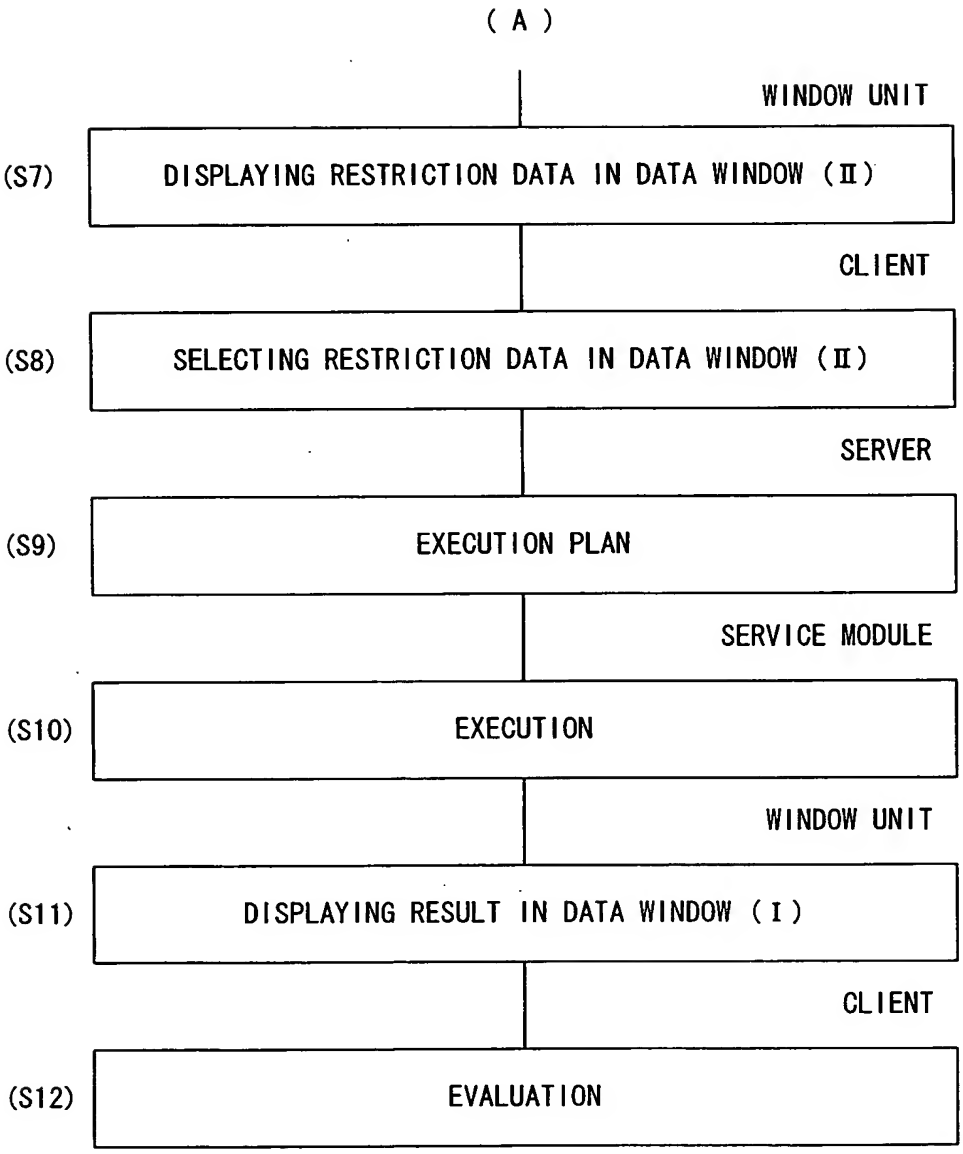

(A)
WINDOW UNIT
(S7)
DISPLAYING RESTRICTION DATA IN DATA WINDOW (Ⅱ)
CLIENT
(S8)
SELECTING RESTRICTION DATA IN DATA WINDOW (Ⅱ)
SERVER
(S9)
EXECUTION PLAN
SERVICE MODULE
(S10)
EXECUTION
WINDOW UNIT
(S11)
DISPLAYING RESULT IN DATA WINDOW (I)
CLIENT
(S12)
EVALUATION

FIG. 10

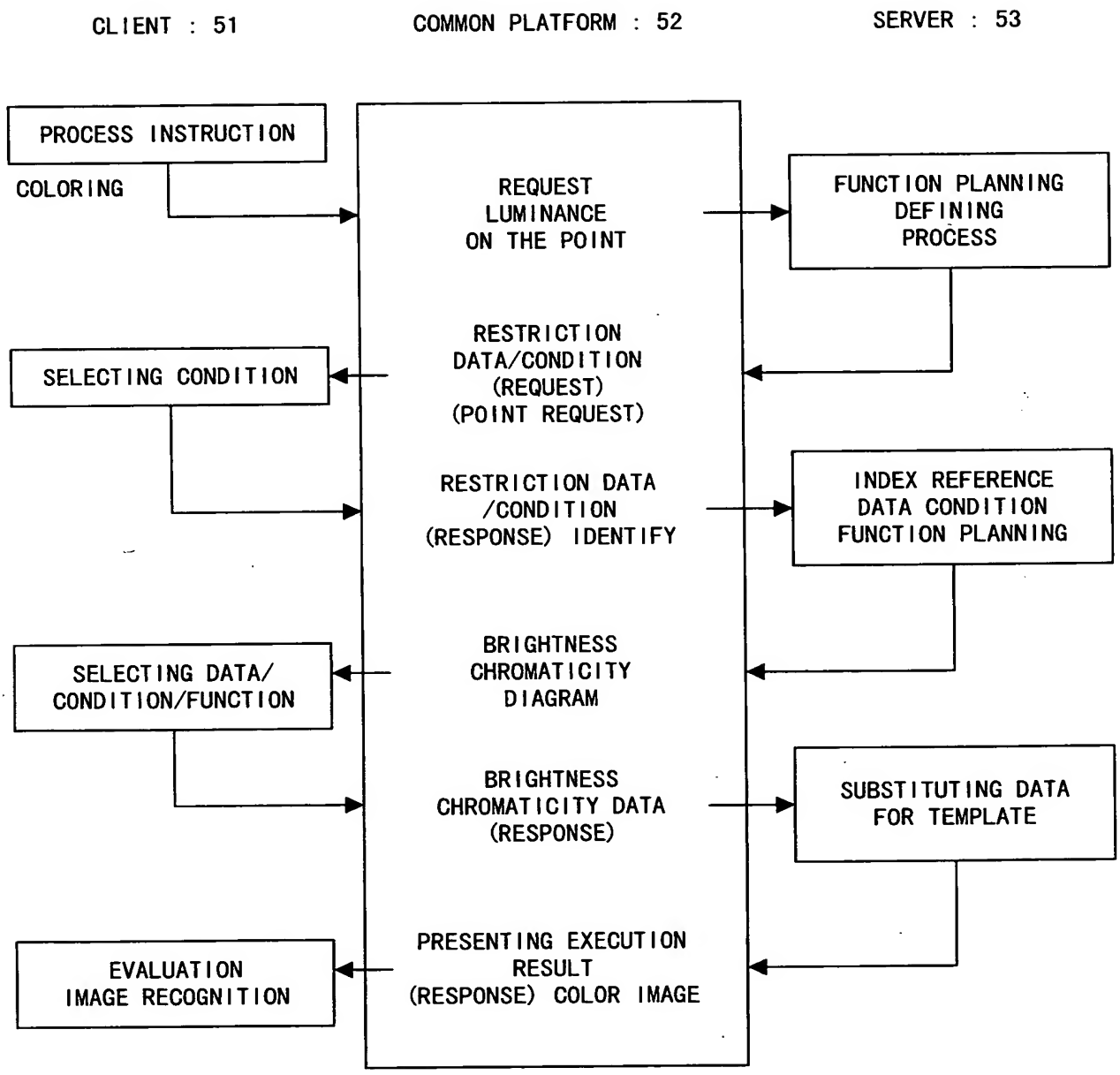

CLIENT : 51
COMMON PLATFORM : 52
SERVER : 53
PROCESS INSTRUCTION
COLORING
REQUEST
LUMINANCE
ON THE POINT
FUNCTION PLANNING
DEFINING
PROCESS
SELECTING CONDITION
RESTRICTION
DATA/CONDITION
(REQUEST)
(POINT REQUEST)
RESTRICTION DATA
/CONDITION
(RESPONSE) IDENTIFY
INDEX REFERENCE
DATA CONDITION
FUNCTION PLANNING
SELECTING DATA/
CONDITION/FUNCTION
BRIGHTNESS
CHROMATICITY
DIAGRAM
BRIGHTNESS
CHROMATICITY DATA
(RESPONSE)
SUBSTITUTING DATA
FOR TEMPLATE
EVALUATION
IMAGE RECOGNITION
PRESENTING EXECUTION
RESULT
(RESPONSE) COLOR IMAGE

FIG. 11

INDEX	X	Y	ATTRIBUTES FOR POINT (X, Y)

FIG. 12

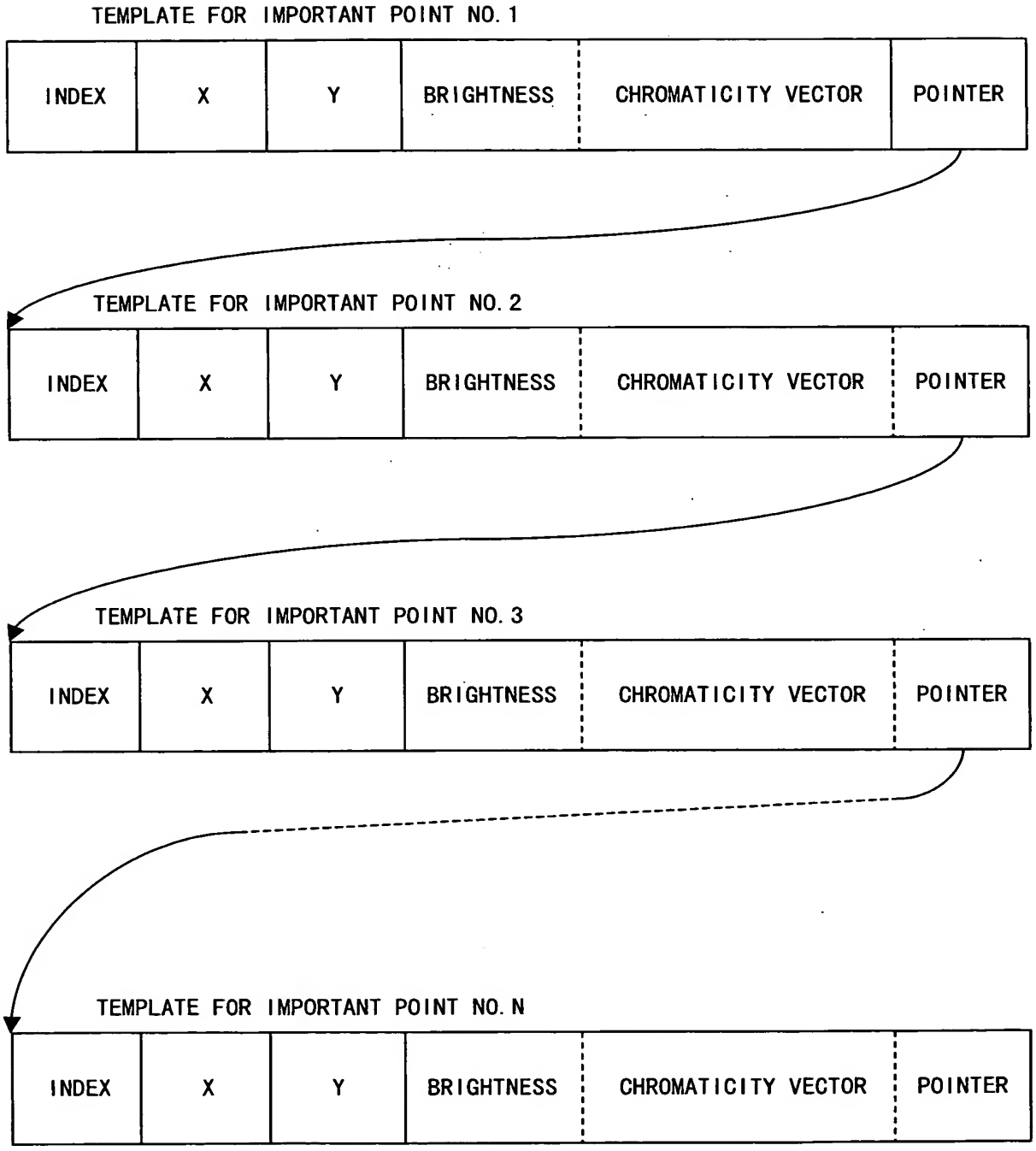

TEMPLATE FOR IMPORTANT POINT NO. 1
INDEX
X
Y
BRIGHTNESS
CHROMATICITY VECTOR
POINTER
TEMPLATE FOR IMPORTANT POINT NO. 2
INDEX
X
Y
BRIGHTNESS
CHROMATICITY VECTOR
POINTER
TEMPLATE FOR IMPORTANT POINT NO. 3
INDEX
X
Y
BRIGHTNESS
CHROMATICITY VECTOR
POINTER
TEMPLATE FOR IMPORTANT POINT NO. N
INDEX
X
Y
BRIGHTNESS
CHROMATICITY VECTOR
POINTER

FIG. 13

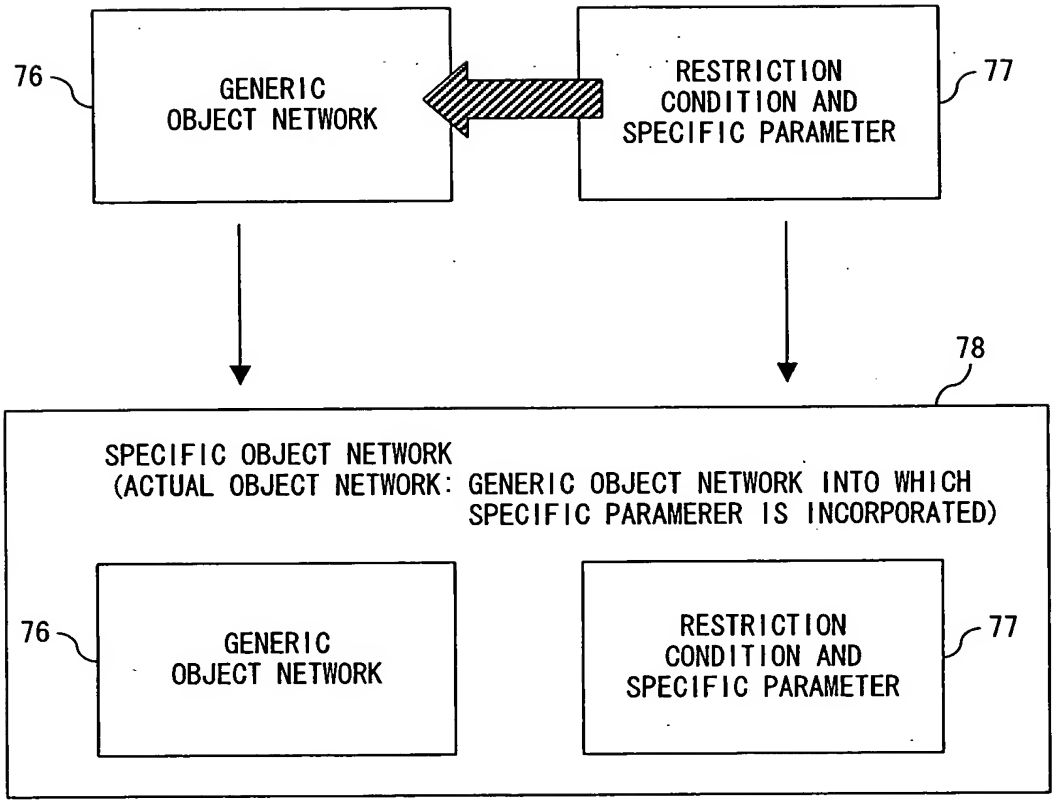

76
GENERIC
OBJECT NETWORK
RESTRICTION
CONDITION AND
SPECIFIC PARAMETER
77
78
SPECIFIC OBJECT NETWORK
(ACTUAL OBJECT NETWORK: GENERIC OBJECT NETWORK INTO WHICH
SPECIFIC PARAMERER IS INCORPORATED)
76
GENERIC
OBJECT NETWORK
RESTRICTION
CONDITION AND
SPECIFIC PARAMETER
77

FIG. 14

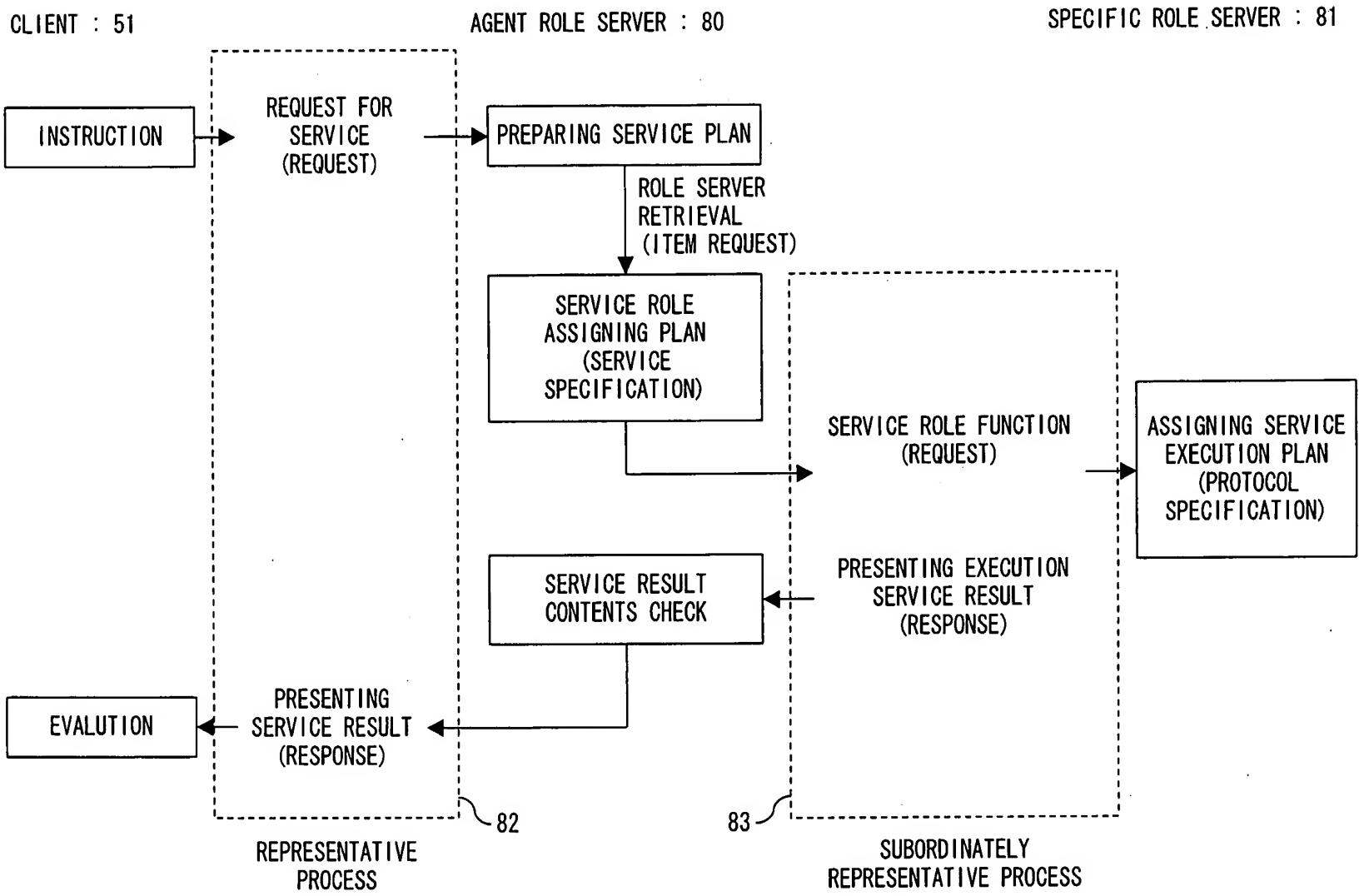

CLIENT : 51
AGENT ROLE SERVER : 80
SPECIFIC ROLE SERVER : 81
INSTRUCTION
REQUEST FOR SERVICE (REQUEST)
PREPARING SERVICE PLAN
ROLE SERVER RETRIEVAL (ITEM REQUEST)
SERVICE ROLE ASSIGNING PLAN (SERVICE SPECIFICATION)
SERVICE ROLE FUNCTION (REQUEST)
ASSIGNING SERVICE EXECUTION PLAN (PROTOCOL SPECIFICATION)
SERVICE RESULT CONTENTS CHECK
PRESENTING EXECUTION SERVICE RESULT (RESPONSE)
EVALUTION
PRESENTING SERVICE RESULT (RESPONSE)
82
83
REPRESENTATIVE PROCESS
SUBORDINATELY REPRESENTATIVE PROCESS

FIG. 15

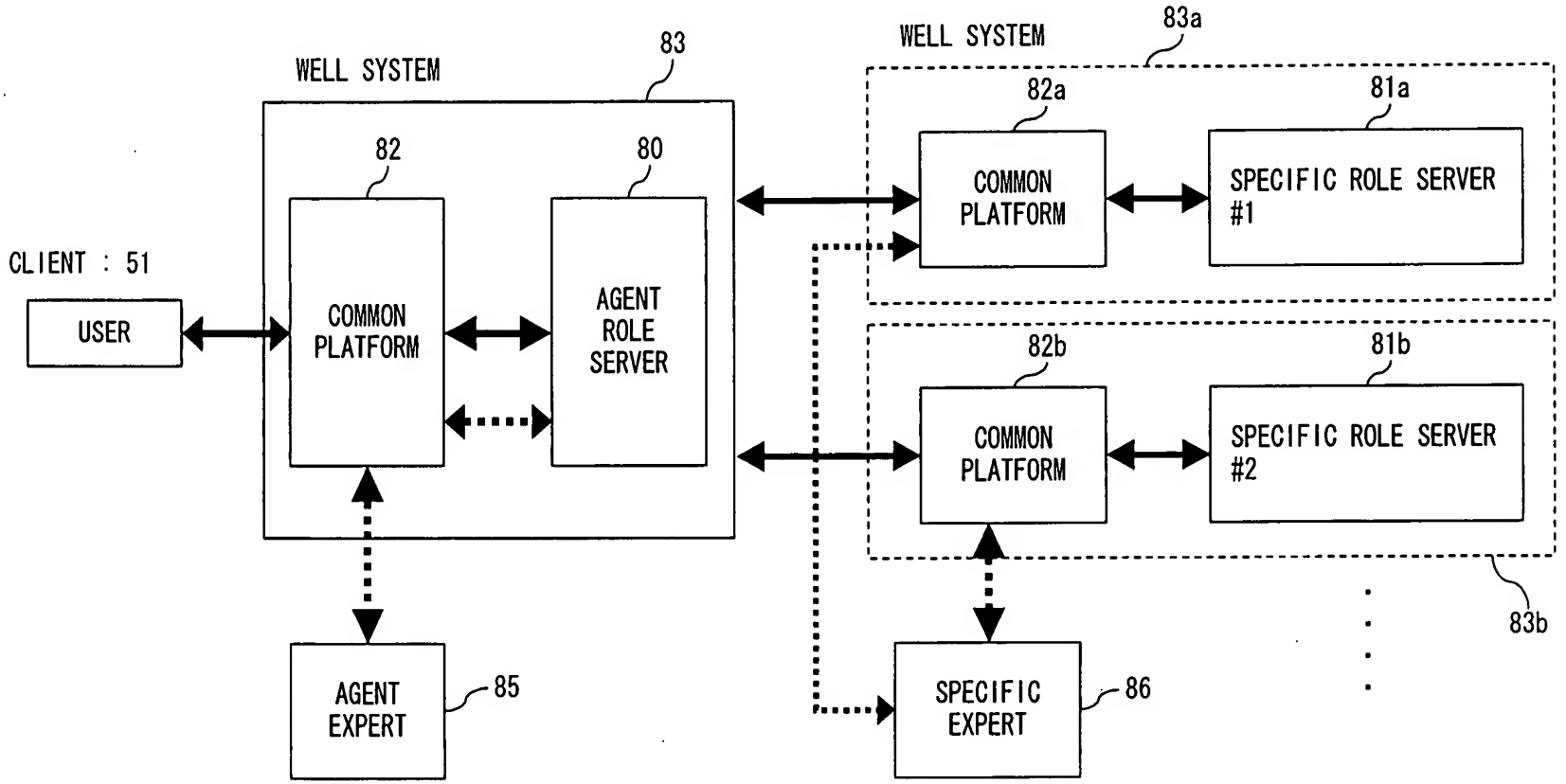

WELL SYSTEM
83
82
80
CLIENT : 51
USER
COMMON PLATFORM
AGENT ROLE SERVER
AGENT EXPERT
85
WELL SYSTEM
83a
82a
81a
COMMON PLATFORM
SPECIFIC ROLE SERVER #1
82b
81b
COMMON PLATFORM
SPECIFIC ROLE SERVER #2
83b
SPECIFIC EXPERT
86

FIG. 16

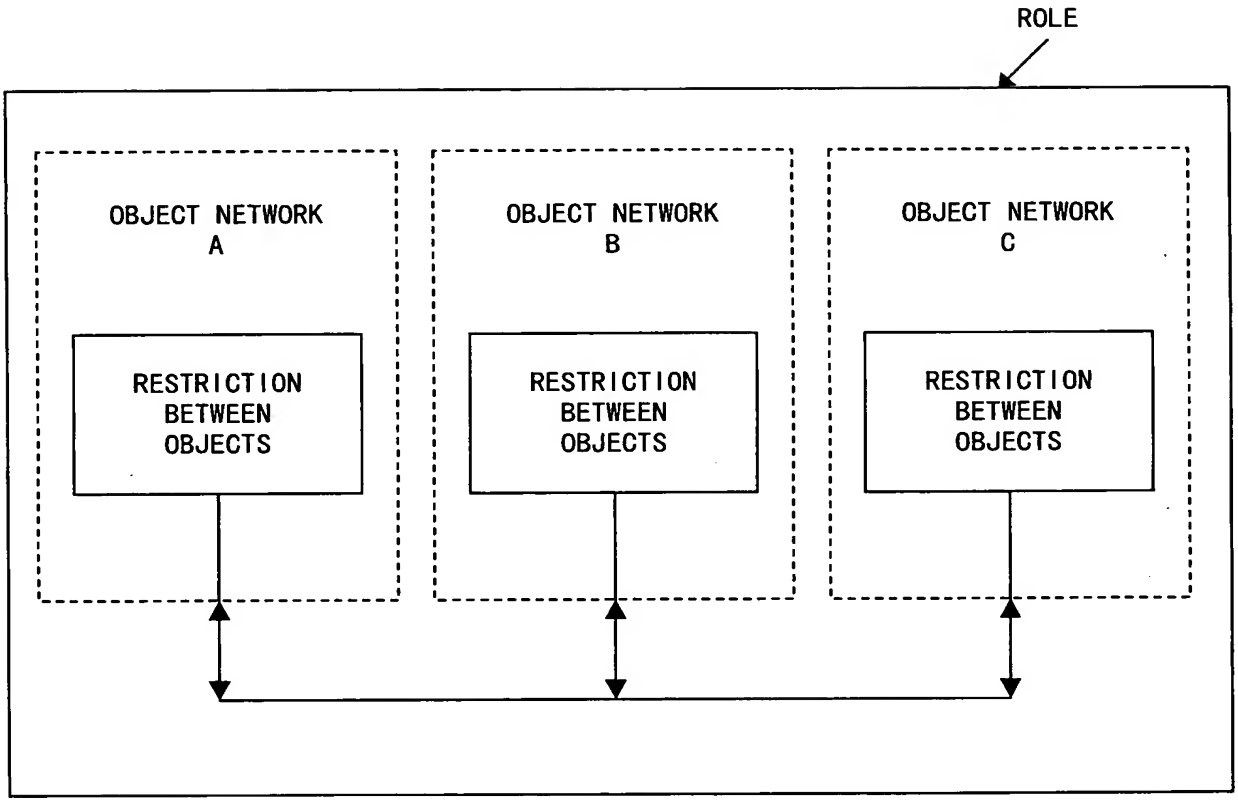

ROLE
OBJECT NETWORK A
RESTRICTION BETWEEN OBJECTS
OBJECT NETWORK B
RESTRICTION BETWEEN OBJECTS
OBJECT NETWORK C
RESTRICTION BETWEEN OBJECTS

FIG. 17

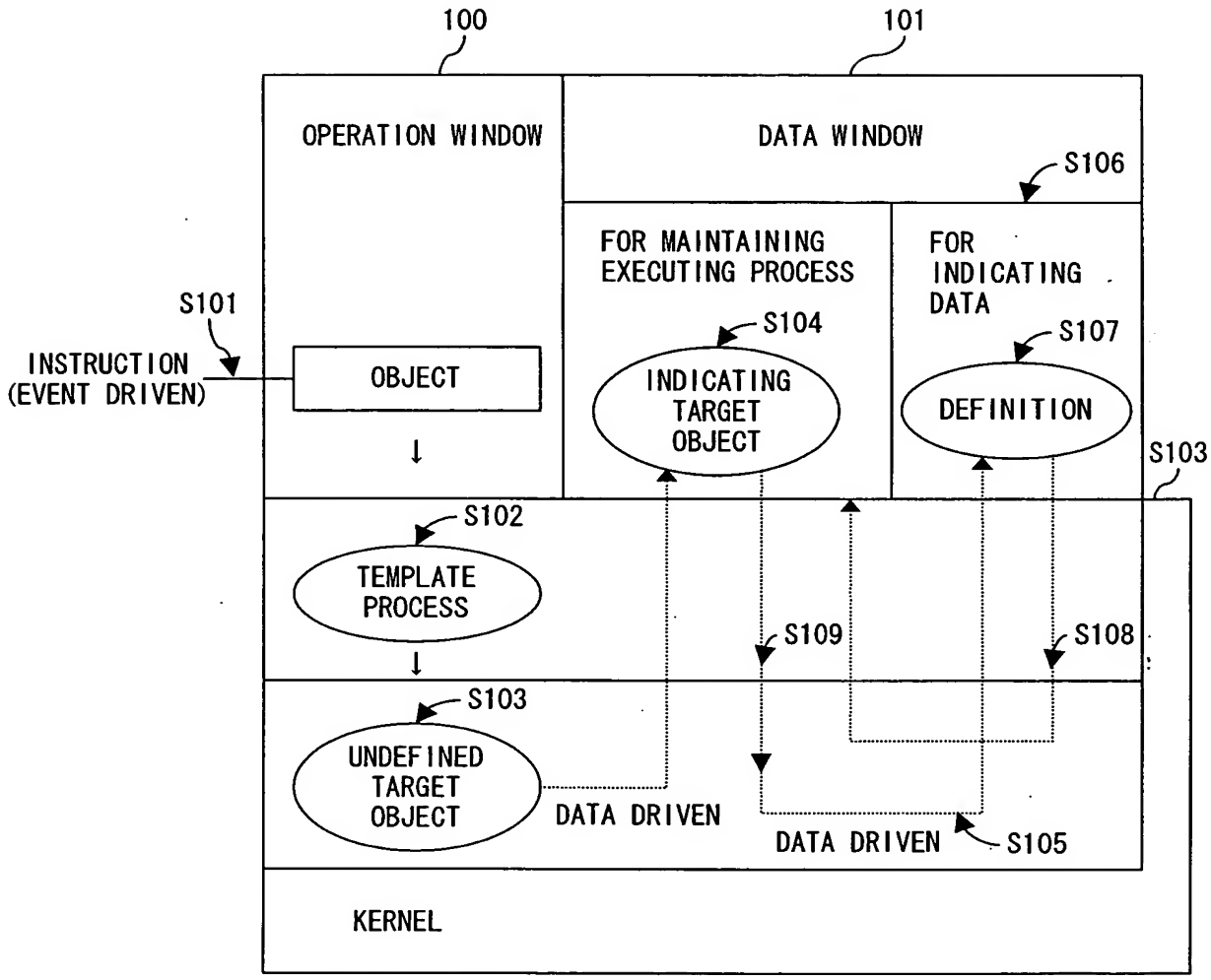

100
101
OPERATION WINDOW
DATA WINDOW
S106
FOR MAINTAINING EXECUTING PROCESS
FOR INDICATING DATA
S101
INSTRUCTION (EVENT DRIVEN)
OBJECT
S104
INDICATING TARGET OBJECT
S107
DEFINITION
S103
S102
TEMPLATE PROCESS
S109
S108
S103
UNDEFINED TARGET OBJECT
DATA DRIVEN
DATA DRIVEN
S105
KERNEL

FIG. 18

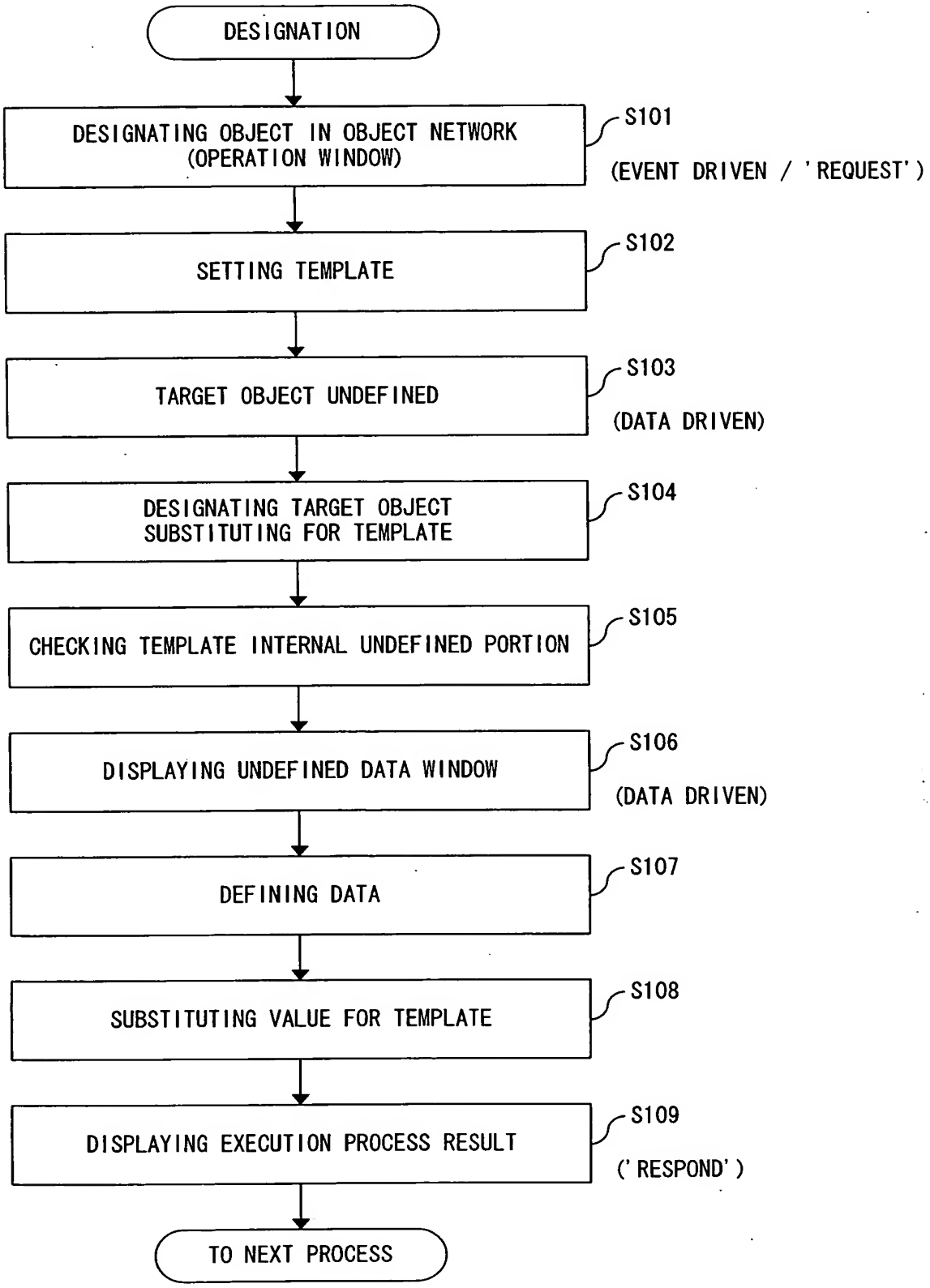

DESIGNATION
DESIGNATING OBJECT IN OBJECT NETWORK (OPERATION WINDOW)
S101
(EVENT DRIVEN / 'REQUEST')
SETTING TEMPLATE
S102
TARGET OBJECT UNDEFINED
S103
(DATA DRIVEN)
DESIGNATING TARGET OBJECT SUBSTITUTING FOR TEMPLATE
S104
CHECKING TEMPLATE INTERNAL UNDEFINED PORTION
S105
DISPLAYING UNDEFINED DATA WINDOW
S106
(DATA DRIVEN)
DEFINING DATA
S107
SUBSTITUTING VALUE FOR TEMPLATE
S108
DISPLAYING EXECUTION PROCESS RESULT
S109
('RESPOND')
TO NEXT PROCESS

FIG. 19

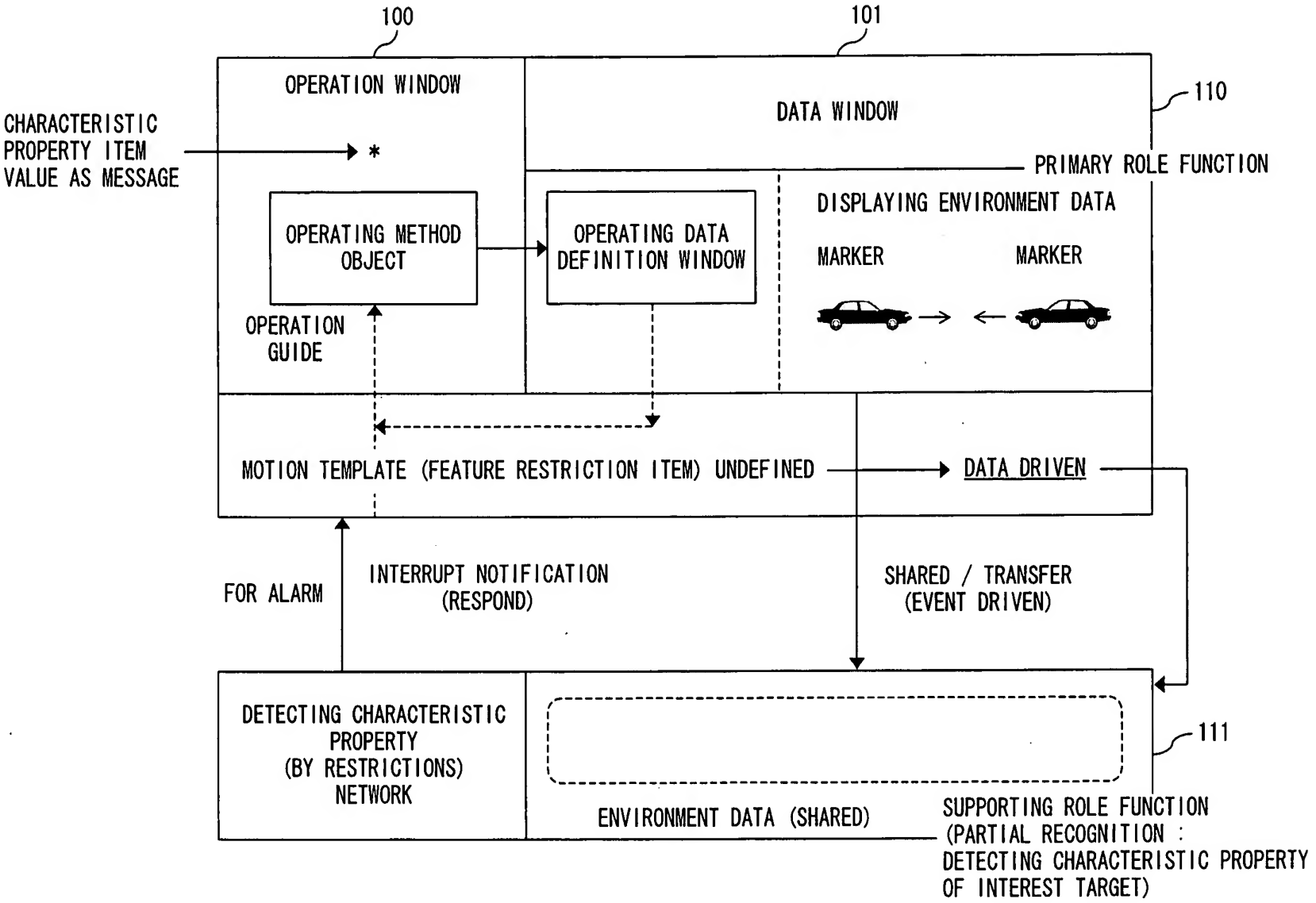

100
101
OPERATION WINDOW
DATA WINDOW
110
CHARACTERISTIC PROPERTY ITEM VALUE AS MESSAGE
*
PRIMARY ROLE FUNCTION
OPERATING METHOD OBJECT
OPERATING DATA DEFINITION WINDOW
DISPLAYING ENVIRONMENT DATA
MARKER
MARKER
OPERATION GUIDE
MOTION TEMPLATE (FEATURE RESTRICTION ITEM) UNDEFINED
DATA DRIVEN
FOR ALARM
INTERRUPT NOTIFICATION (RESPOND)
SHARED / TRANSFER (EVENT DRIVEN)
DETECTING CHARACTERISTIC PROPERTY (BY RESTRICTIONS) NETWORK
111
ENVIRONMENT DATA (SHARED)
SUPPORTING ROLE FUNCTION (PARTIAL RECOGNITION : DETECTING CHARACTERISTIC PROPERTY OF INTEREST TARGET)

FIG. 20

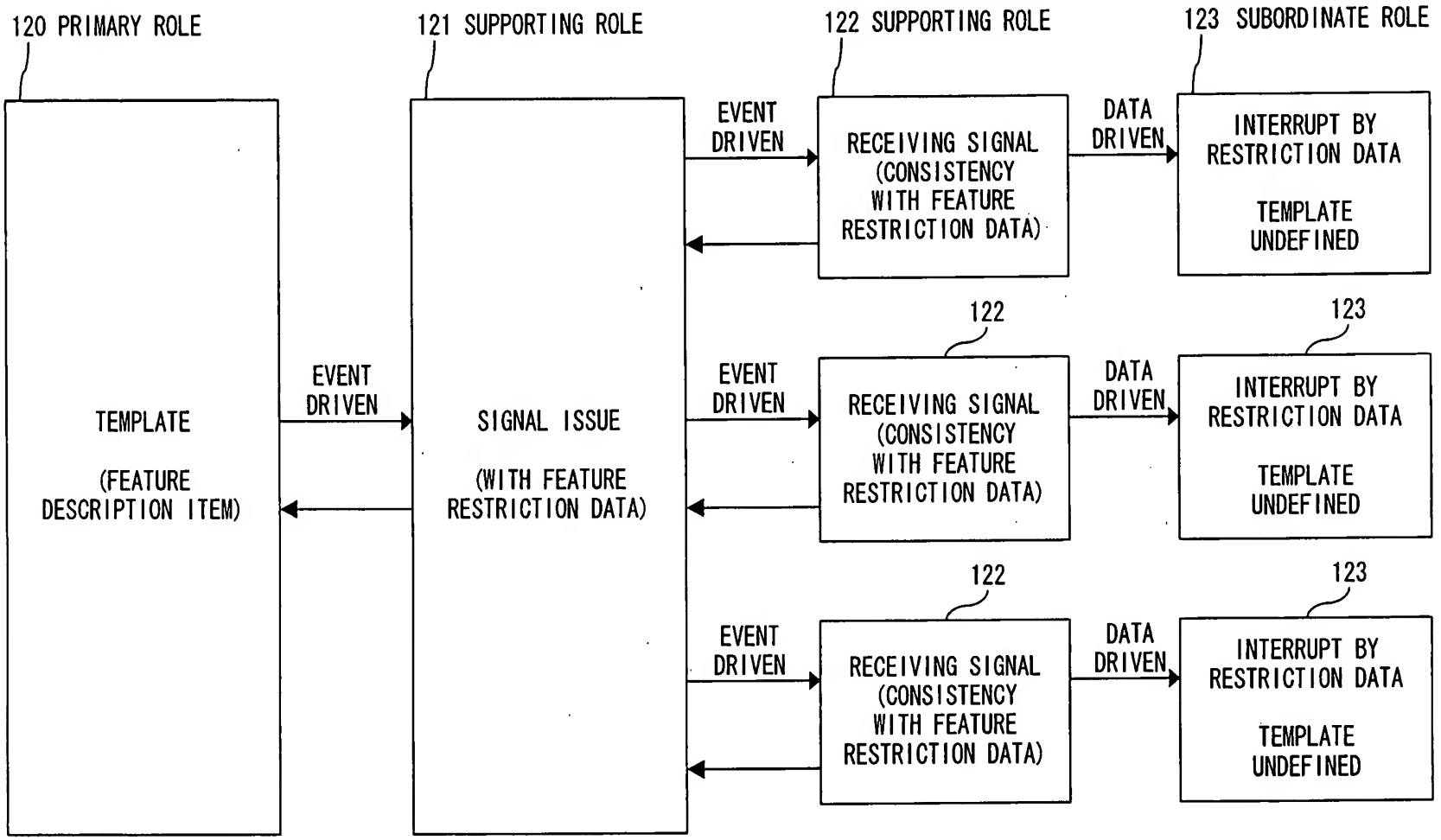

120 PRIMARY ROLE
121 SUPPORTING ROLE
122 SUPPORTING ROLE
123 SUBORDINATE ROLE
TEMPLATE
(FEATURE DESCRIPTION ITEM)
EVENT DRIVEN
SIGNAL ISSUE
(WITH FEATURE RESTRICTION DATA)
EVENT DRIVEN
RECEIVING SIGNAL (CONSISTENCY WITH FEATURE RESTRICTION DATA)
DATA DRIVEN
INTERRUPT BY RESTRICTION DATA
TEMPLATE UNDEFINED
122
123
EVENT DRIVEN
RECEIVING SIGNAL (CONSISTENCY WITH FEATURE RESTRICTION DATA)
DATA DRIVEN
INTERRUPT BY RESTRICTION DATA
TEMPLATE UNDEFINED
122
123
EVENT DRIVEN
RECEIVING SIGNAL (CONSISTENCY WITH FEATURE RESTRICTION DATA)
DATA DRIVEN
INTERRUPT BY RESTRICTION DATA
TEMPLATE UNDEFINED

FIG. 21

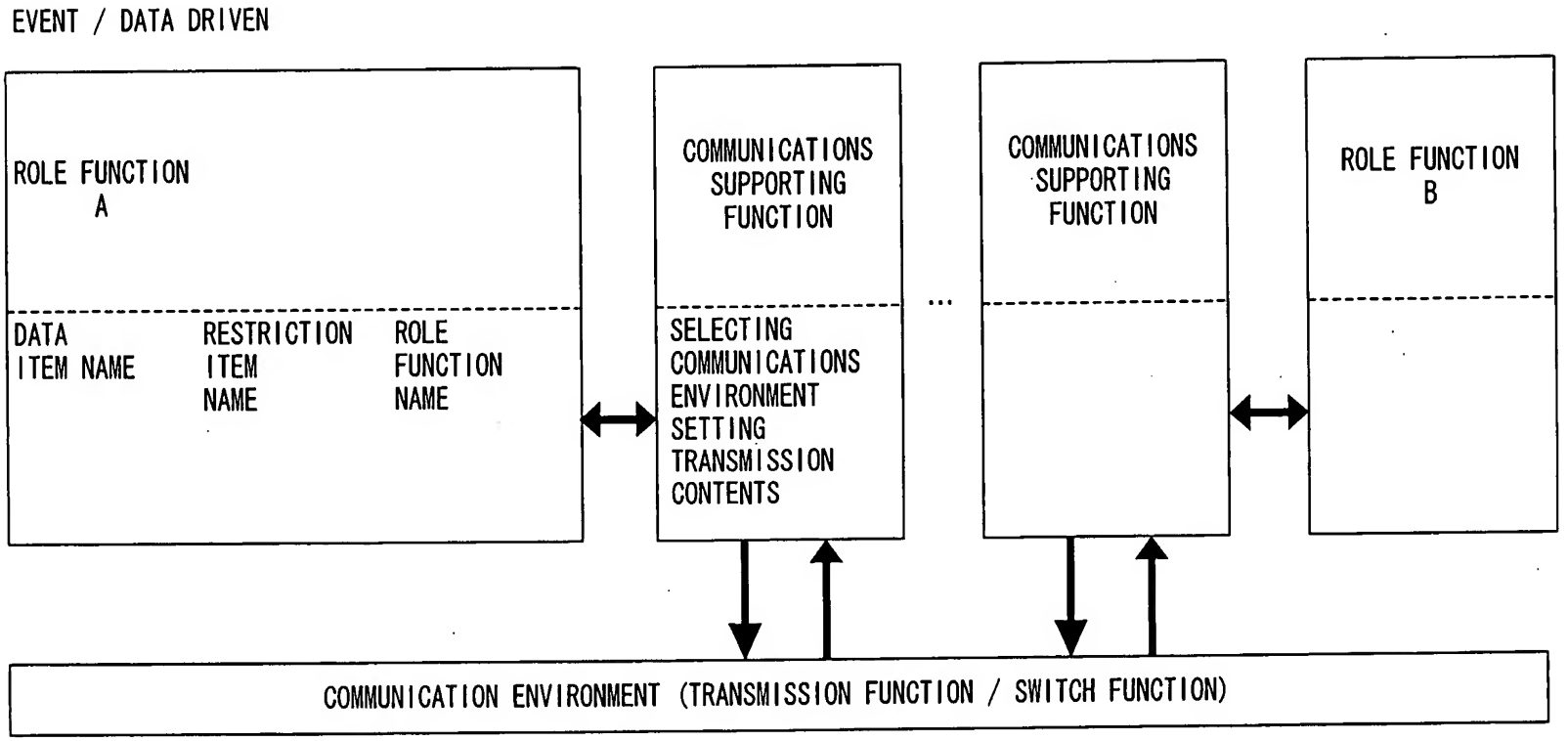

EVENT / DATA DRIVEN
ROLE FUNCTION A
DATA ITEM NAME
RESTRICTION ITEM NAME
ROLE FUNCTION NAME
COMMUNICATIONS SUPPORTING FUNCTION
SELECTING COMMUNICATIONS ENVIRONMENT SETTING TRANSMISSION CONTENTS
...
COMMUNICATIONS SUPPORTING FUNCTION
ROLE FUNCTION B
COMMUNICATION ENVIRONMENT (TRANSMISSION FUNCTION / SWITCH FUNCTION)

FIG. 22

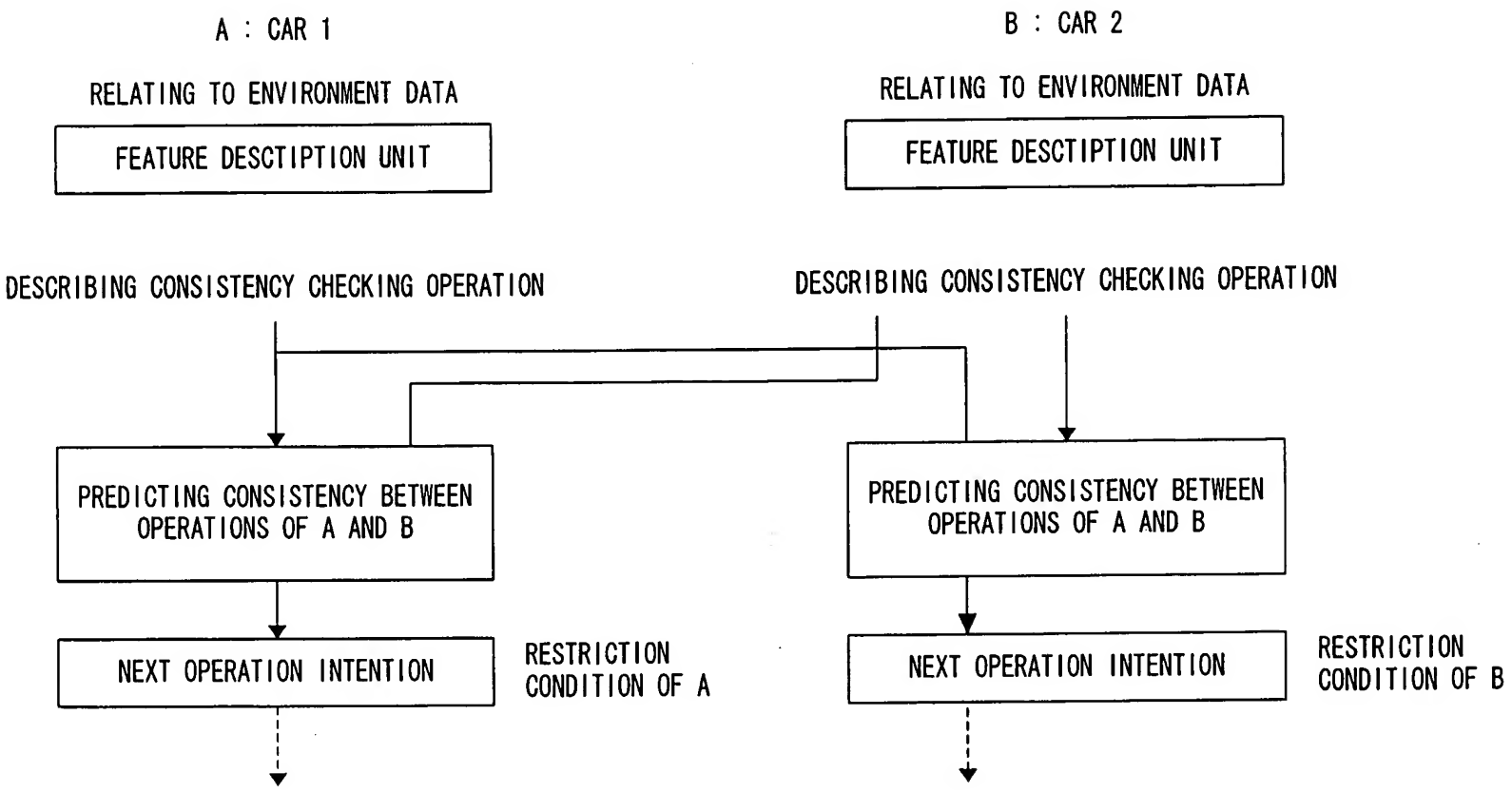

A : CAR 1
RELATING TO ENVIRONMENT DATA
FEATURE DESCTIPTION UNIT
DESCRIBING CONSISTENCY CHECKING OPERATION
PREDICTING CONSISTENCY BETWEEN OPERATIONS OF A AND B
NEXT OPERATION INTENTION
RESTRICTION CONDITION OF A
B : CAR 2
RELATING TO ENVIRONMENT DATA
FEATURE DESCTIPTION UNIT
DESCRIBING CONSISTENCY CHECKING OPERATION
PREDICTING CONSISTENCY BETWEEN OPERATIONS OF A AND B
NEXT OPERATION INTENTION
RESTRICTION CONDITION OF B

FIG. 23

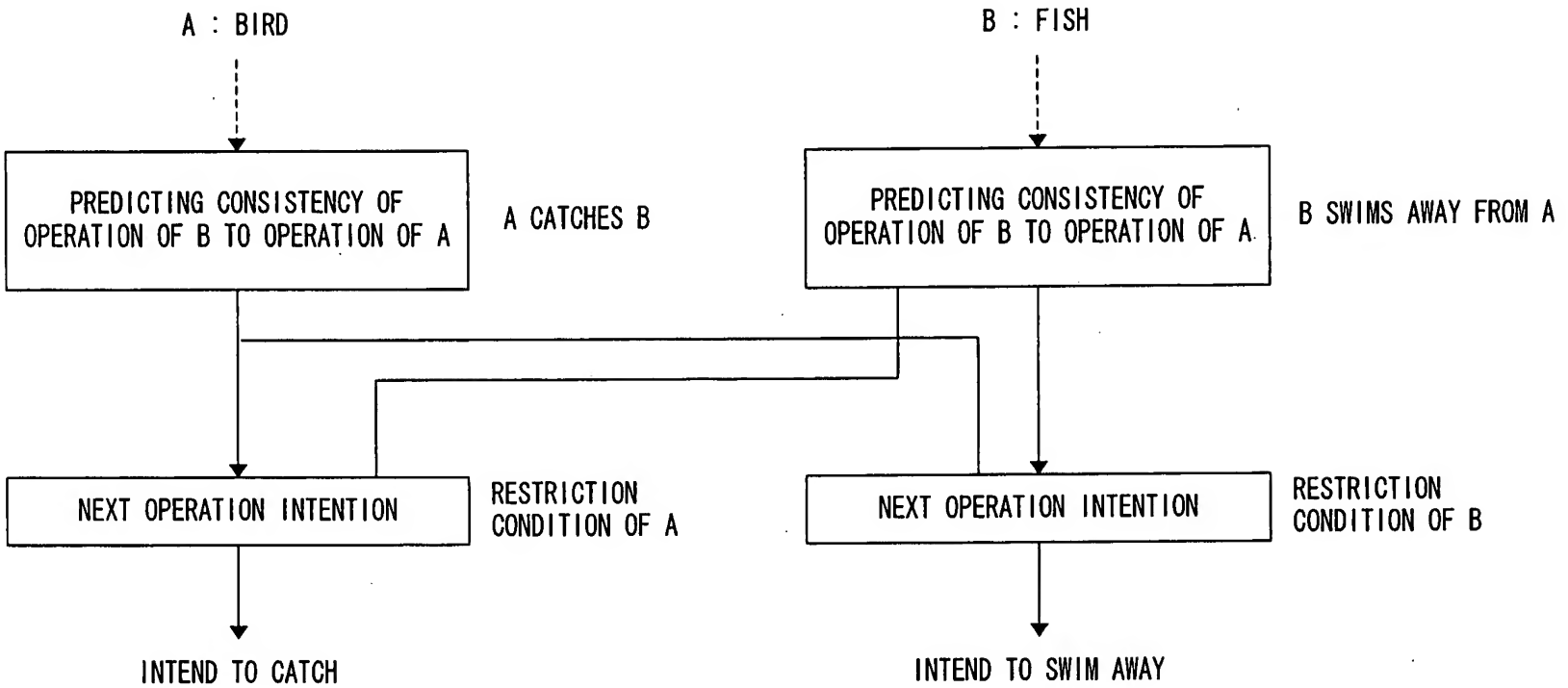

A : BIRD
B : FISH
PREDICTING CONSISTENCY OF OPERATION OF B TO OPERATION OF A
A CATCHES B
PREDICTING CONSISTENCY OF OPERATION OF B TO OPERATION OF A
B SWIMS AWAY FROM A
NEXT OPERATION INTENTION
RESTRICTION CONDITION OF A
NEXT OPERATION INTENTION
RESTRICTION CONDITION OF B
INTEND TO CATCH
INTEND TO SWIM AWAY

FIG. 24

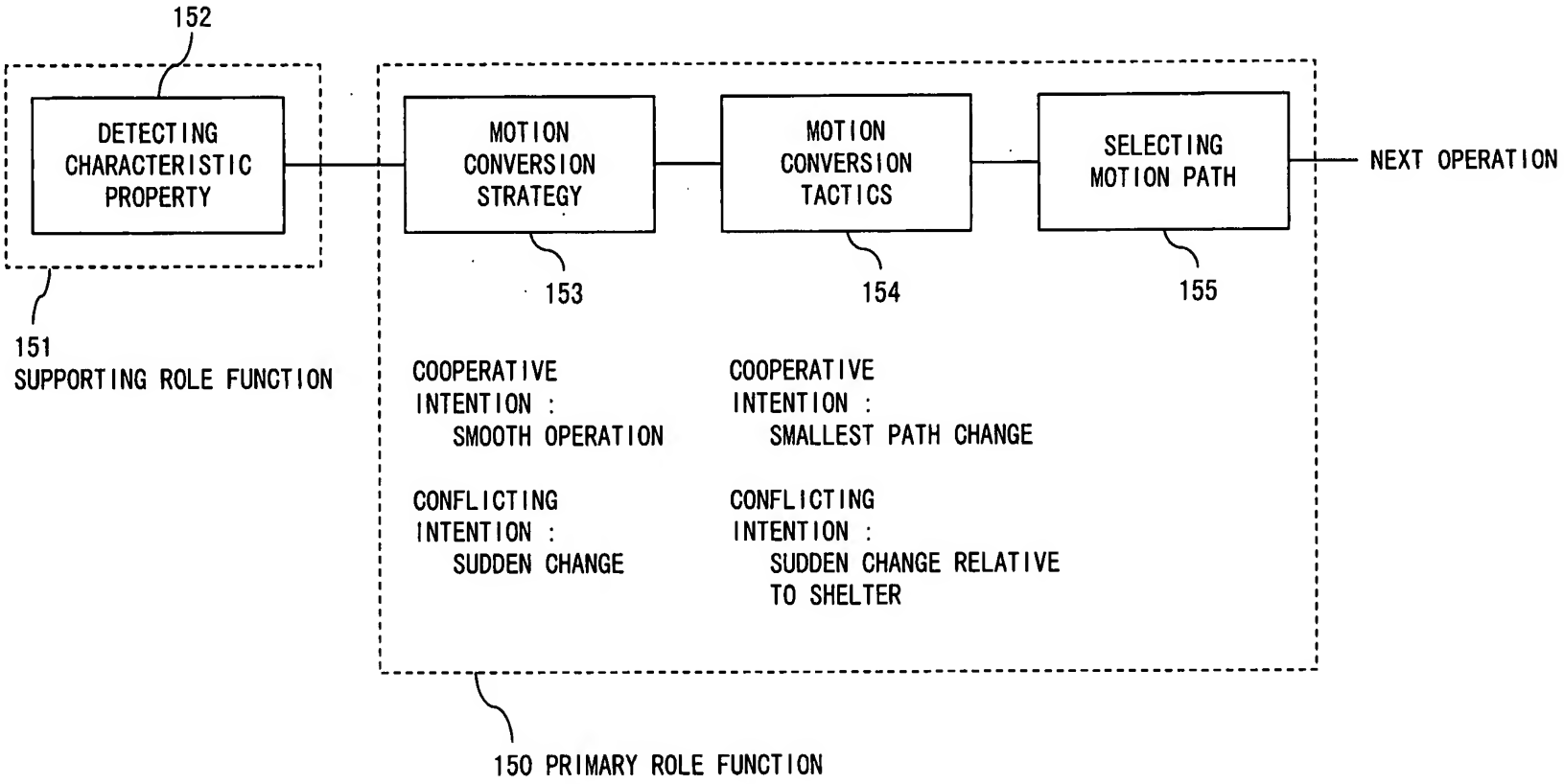

152
DETECTING CHARACTERISTIC PROPERTY
MOTION CONVERSION STRATEGY
MOTION CONVERSION TACTICS
SELECTING MOTION PATH
NEXT OPERATION
153
154
155
151
SUPPORTING ROLE FUNCTION
COOPERATIVE INTENTION : SMOOTH OPERATION
CONFLICTING INTENTION : SUDDEN CHANGE
COOPERATIVE INTENTION : SMALLEST PATH CHANGE
CONFLICTING INTENTION : SUDDEN CHANGE RELATIVE TO SHELTER
150 PRIMARY ROLE FUNCTION

FIG. 25

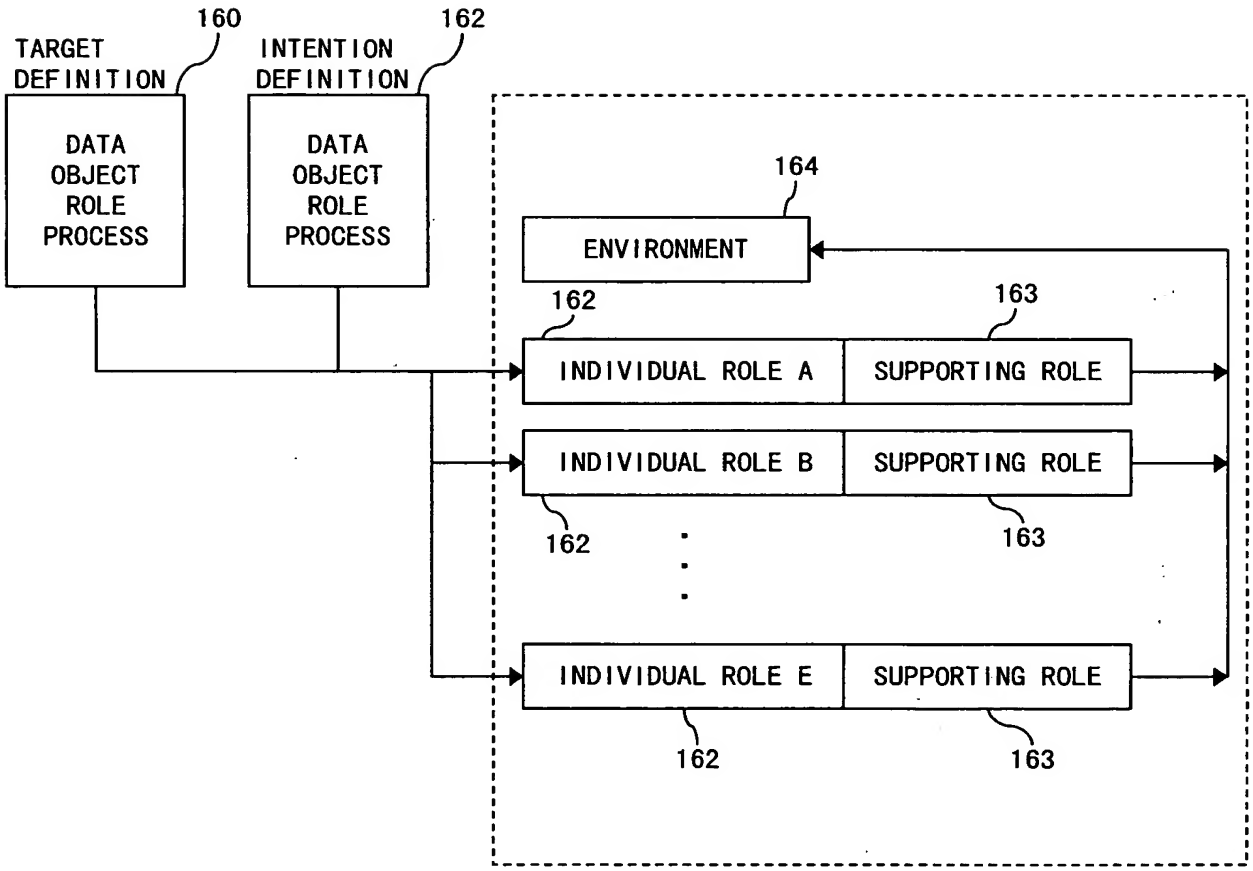

160
TARGET DEFINITION
162
INTENTION DEFINITION
DATA OBJECT ROLE PROCESS
DATA OBJECT ROLE PROCESS
164
ENVIRONMENT
162
163
INDIVIDUAL ROLE A
SUPPORTING ROLE
INDIVIDUAL ROLE B
SUPPORTING ROLE
162
163
INDIVIDUAL ROLE E
SUPPORTING ROLE
162
163

FIG. 26

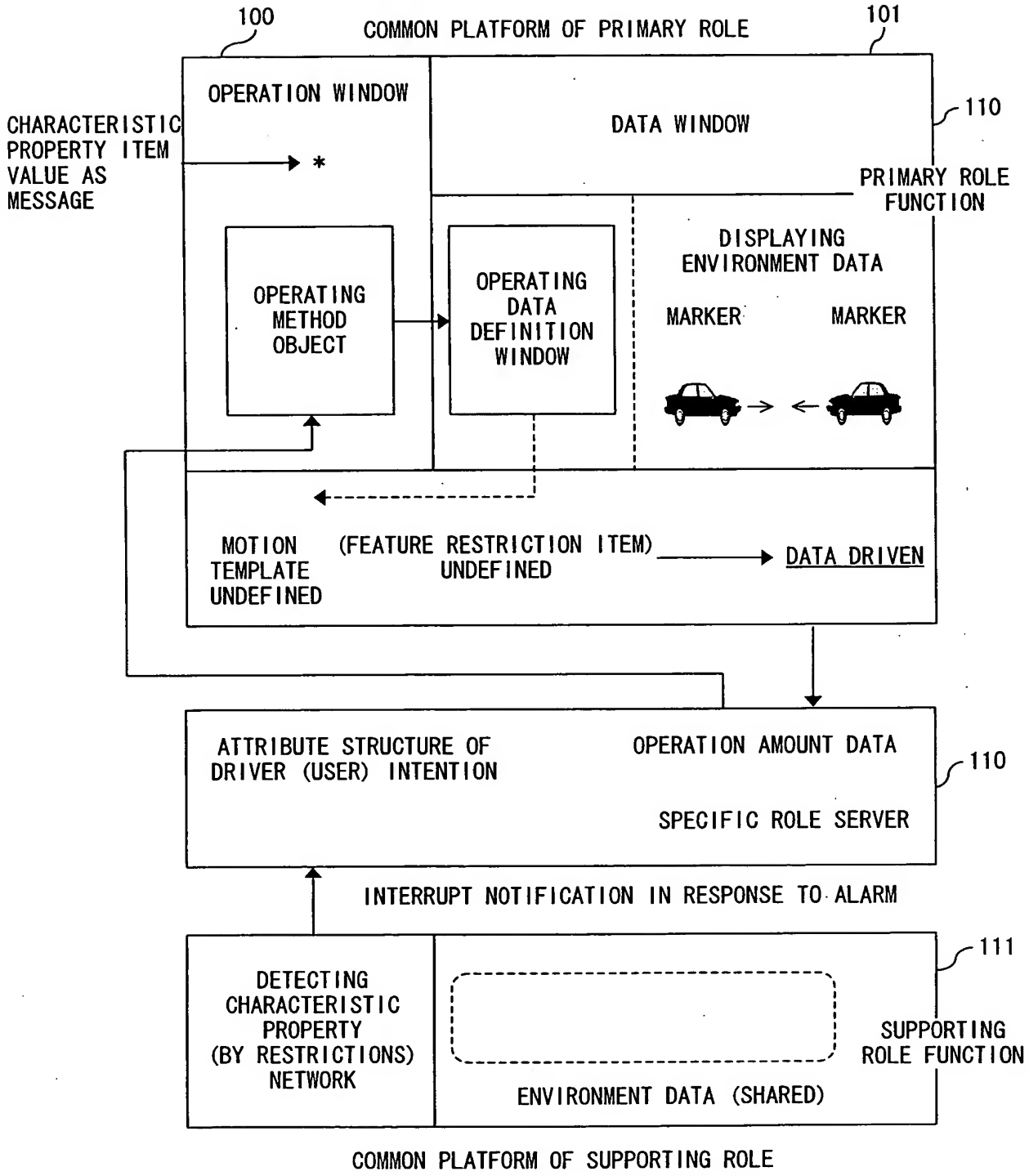

100
COMMON PLATFORM OF PRIMARY ROLE
101
OPERATION WINDOW
DATA WINDOW
110
CHARACTERISTIC PROPERTY ITEM VALUE AS MESSAGE
*
PRIMARY ROLE FUNCTION
OPERATING METHOD OBJECT
OPERATING DATA DEFINITION WINDOW
DISPLAYING ENVIRONMENT DATA
MARKER
MARKER
MOTION TEMPLATE UNDEFINED
(FEATURE RESTRICTION ITEM) UNDEFINED
DATA DRIVEN
ATTRIBUTE STRUCTURE OF DRIVER (USER) INTENTION
OPERATION AMOUNT DATA
110
SPECIFIC ROLE SERVER
INTERRUPT NOTIFICATION IN RESPONSE TO ALARM
111
DETECTING CHARACTERISTIC PROPERTY (BY RESTRICTIONS) NETWORK
SUPPORTING ROLE FUNCTION
ENVIRONMENT DATA (SHARED)
COMMON PLATFORM OF SUPPORTING ROLE

FIG. 27

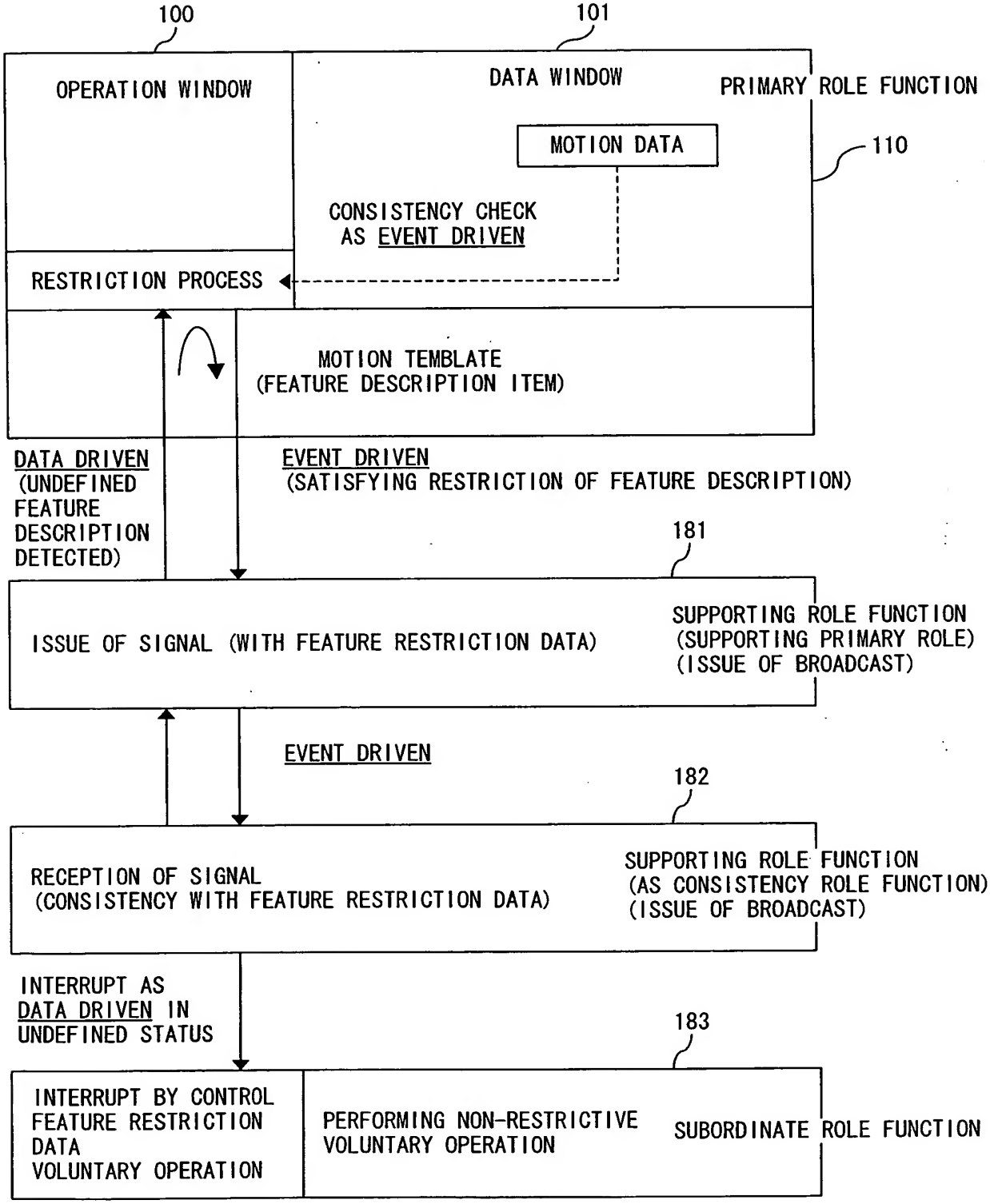

100
101
OPERATION WINDOW
DATA WINDOW
PRIMARY ROLE FUNCTION
MOTION DATA
110
CONSISTENCY CHECK
AS EVENT DRIVEN
RESTRICTION PROCESS
MOTION TEMBLATE
(FEATURE DESCRIPTION ITEM)
DATA DRIVEN
(UNDEFINED
FEATURE
DESCRIPTION
DETECTED)
EVENT DRIVEN
(SATISFYING RESTRICTION OF FEATURE DESCRIPTION)
181
ISSUE OF SIGNAL (WITH FEATURE RESTRICTION DATA)
SUPPORTING ROLE FUNCTION
(SUPPORTING PRIMARY ROLE)
(ISSUE OF BROADCAST)
EVENT DRIVEN
182
RECEPTION OF SIGNAL
(CONSISTENCY WITH FEATURE RESTRICTION DATA)
SUPPORTING ROLE FUNCTION
(AS CONSISTENCY ROLE FUNCTION)
(ISSUE OF BROADCAST)
INTERRUPT AS
DATA DRIVEN IN
UNDEFINED STATUS
183
INTERRUPT BY CONTROL
FEATURE RESTRICTION
DATA
VOLUNTARY OPERATION
PERFORMING NON-RESTRICTIVE
VOLUNTARY OPERATION
SUBORDINATE ROLE FUNCTION

FIG. 28

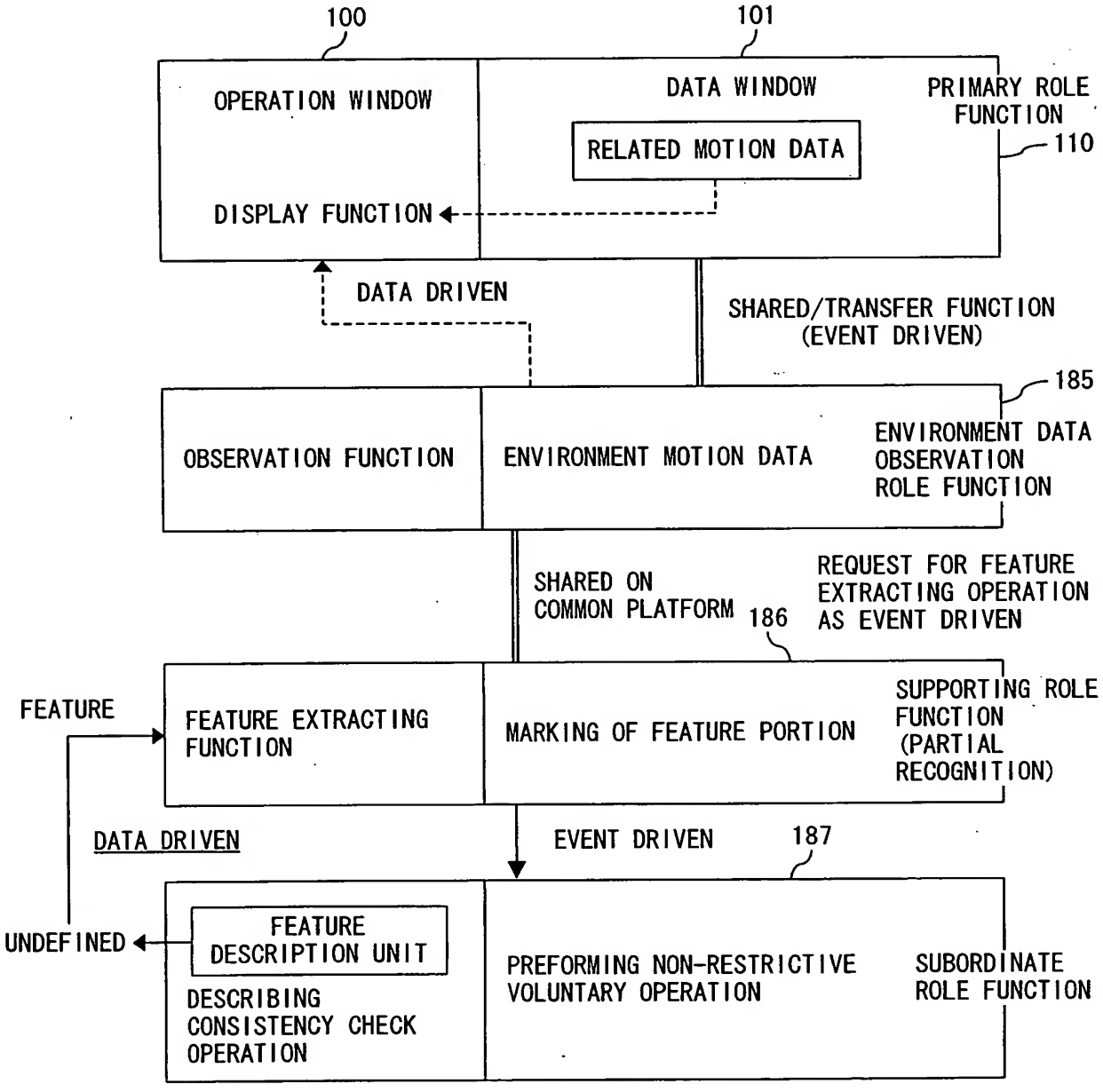

100
101
OPERATION WINDOW
DATA WINDOW
PRIMARY ROLE FUNCTION
RELATED MOTION DATA
110
DISPLAY FUNCTION
DATA DRIVEN
SHARED/TRANSFER FUNCTION (EVENT DRIVEN)
185
OBSERVATION FUNCTION
ENVIRONMENT MOTION DATA
ENVIRONMENT DATA OBSERVATION ROLE FUNCTION
SHARED ON COMMON PLATFORM
186
REQUEST FOR FEATURE EXTRACTING OPERATION AS EVENT DRIVEN
FEATURE
FEATURE EXTRACTING FUNCTION
MARKING OF FEATURE PORTION
SUPPORTING ROLE FUNCTION (PARTIAL RECOGNITION)
DATA DRIVEN
EVENT DRIVEN
187
UNDEFINED
FEATURE DESCRIPTION UNIT
DESCRIBING CONSISTENCY CHECK OPERATION
PREFORMING NON-RESTRICTIVE VOLUNTARY OPERATION
SUBORDINATE ROLE FUNCTION

FIG. 29

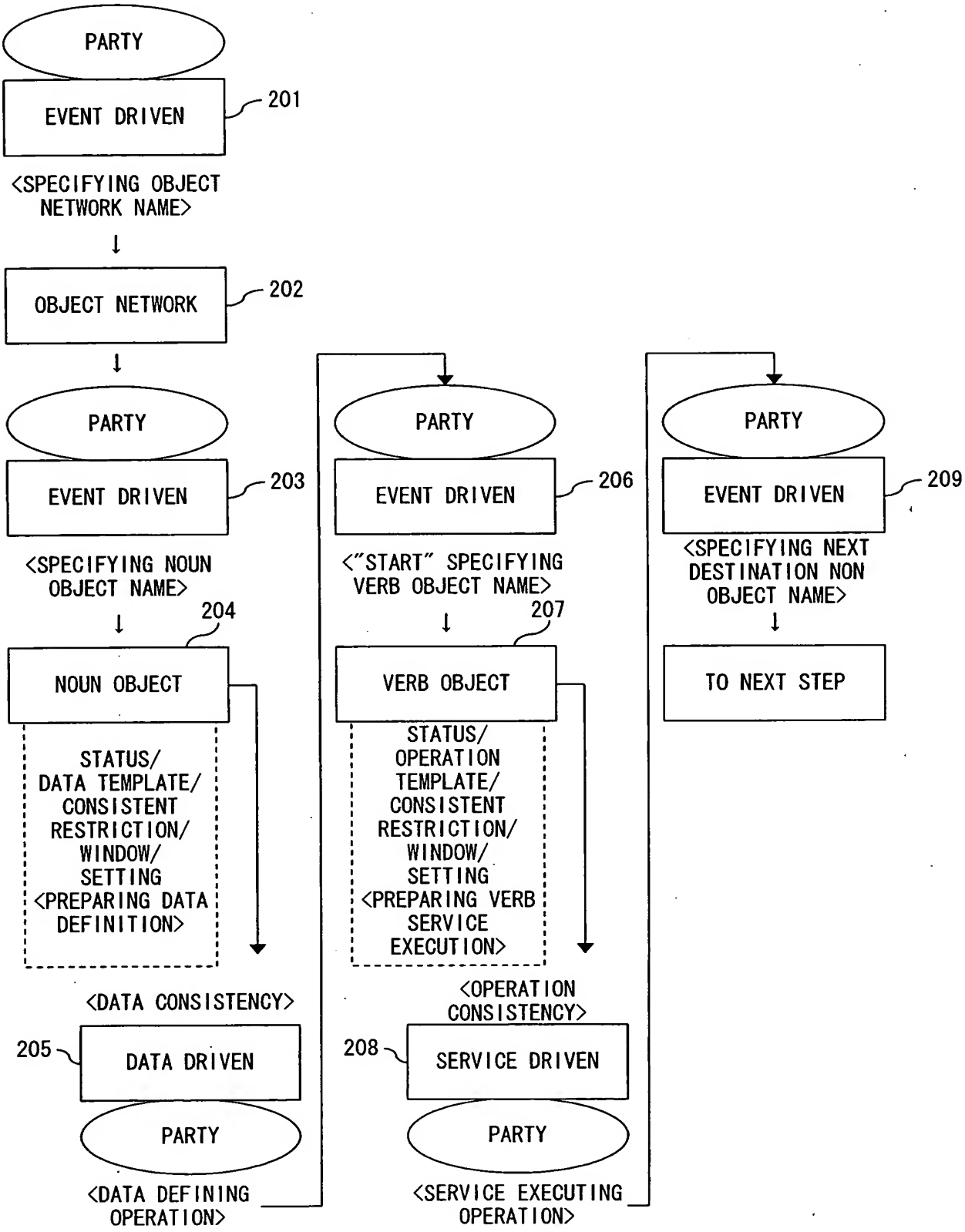

PARTY
EVENT DRIVEN
201
<SPECIFYING OBJECT NETWORK NAME>
OBJECT NETWORK
202
PARTY
EVENT DRIVEN
203
<SPECIFYING NOUN OBJECT NAME>
204
NOUN OBJECT
STATUS/ DATA TEMPLATE/ CONSISTENT RESTRICTION/ WINDOW/ SETTING <PREPARING DATA DEFINITION>
<DATA CONSISTENCY>
205
DATA DRIVEN
PARTY
<DATA DEFINING OPERATION>
PARTY
EVENT DRIVEN
206
<"START" SPECIFYING VERB OBJECT NAME>
207
VERB OBJECT
STATUS/ OPERATION TEMPLATE/ CONSISTENT RESTRICTION/ WINDOW/ SETTING <PREPARING VERB SERVICE EXECUTION>
<OPERATION CONSISTENCY>
208
SERVICE DRIVEN
PARTY
<SERVICE EXECUTING OPERATION>
PARTY
EVENT DRIVEN
209
<SPECIFYING NEXT DESTINATION NON OBJECT NAME>
TO NEXT STEP

FIG. 30

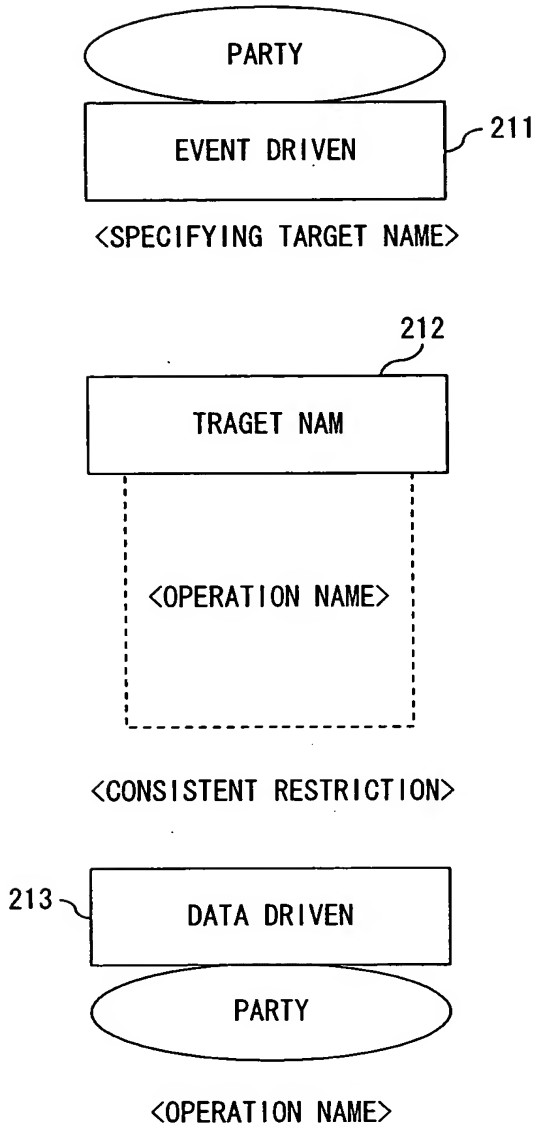

PARTY
EVENT DRIVEN
211
<SPECIFYING TARGET NAME>
212
TRAGET NAM
<OPERATION NAME>
<CONSISTENT RESTRICTION>
213
DATA DRIVEN
PARTY
<OPERATION NAME>

FIG. 31

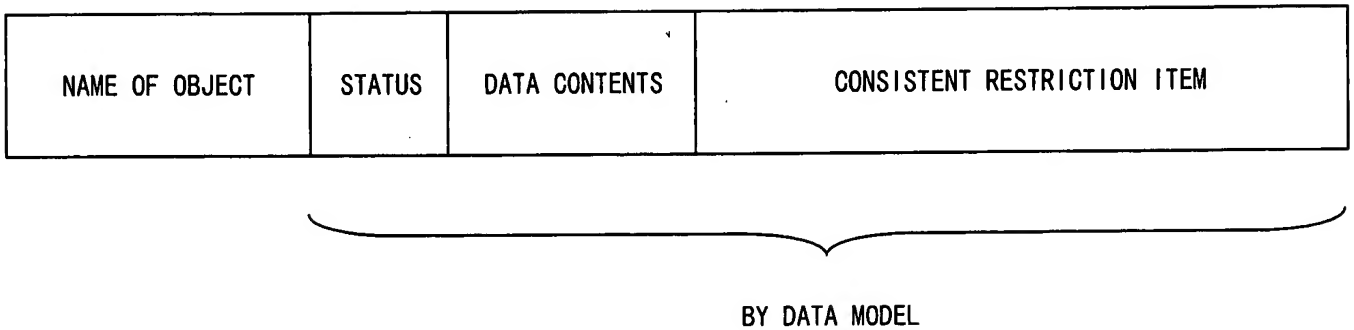

NAME OF OBJECT
STATUS
DATA CONTENTS
CONSISTENT RESTRICTION ITEM
BY DATA MODEL

FIG. 32

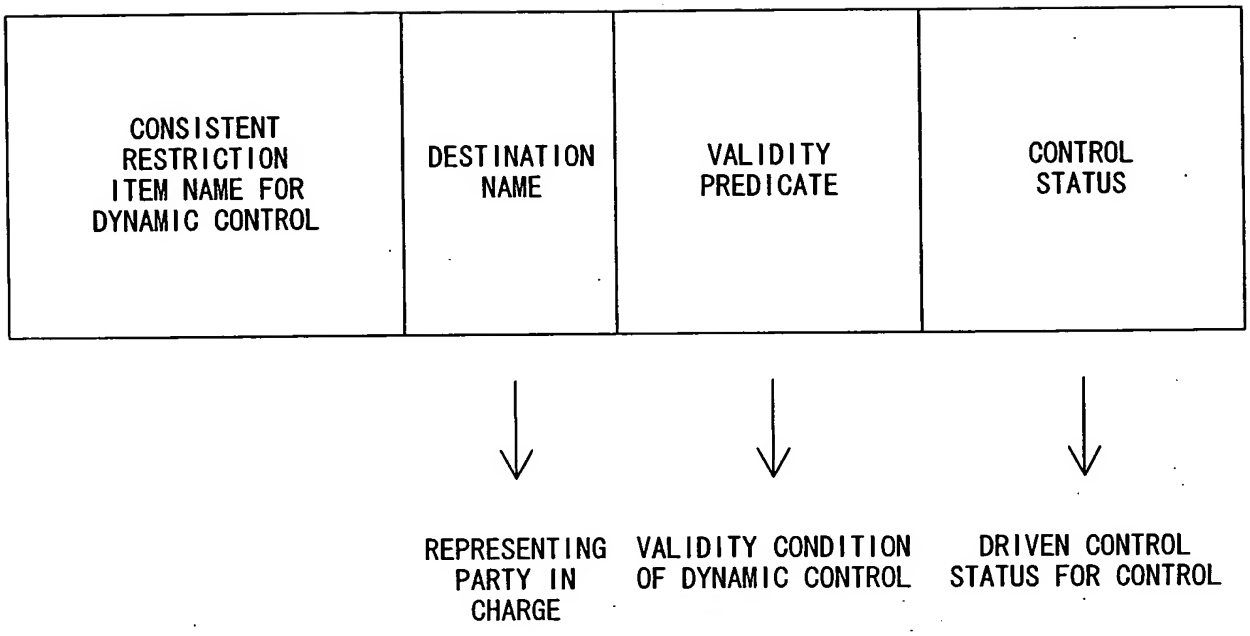
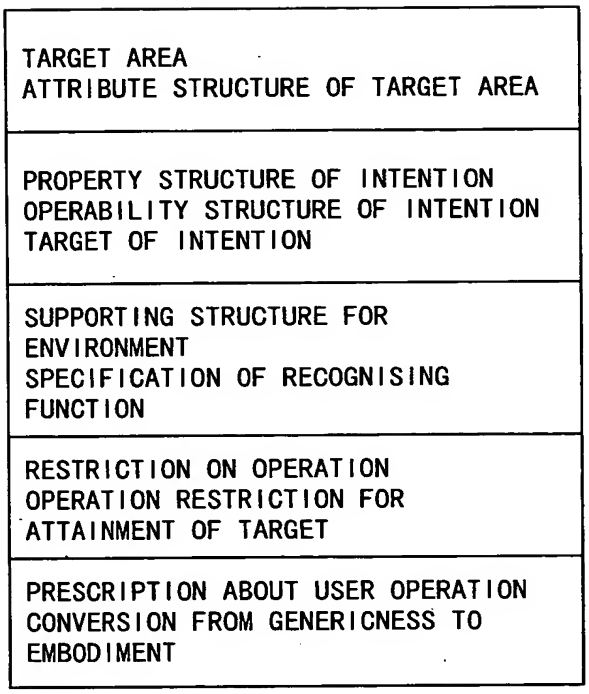

CONSISTENT RESTRICTION ITEM NAME FOR DYNAMIC CONTROL
DESTINATION NAME
VALIDITY PREDICATE
CONTROL STATUS
REPRESENTING PARTY IN CHARGE
VALIDITY CONDITION OF DYNAMIC CONTROL
DRIVEN CONTROL STATUS FOR CONTROL

FIG. 33



TARGET AREA: RELATION RESTRICTION TO RARTY (ACCESS RIGHT)→DESCRIBING ATTRIBUTE STRUCTURE OF TARGET

INTENTION : INTENTION DEFINITION PREPARATION PROCESS TO SUPPORTING FUNCTION OF ATTAINMENT OF INTENTION (SETTING TEMPLATE)

SUPPORT : FEATURE STRUCTURE OF ENVIRONMENT DATA

STRATEGY AND TACTICS: DESCRIBING OPERABILITY

FIG. 34

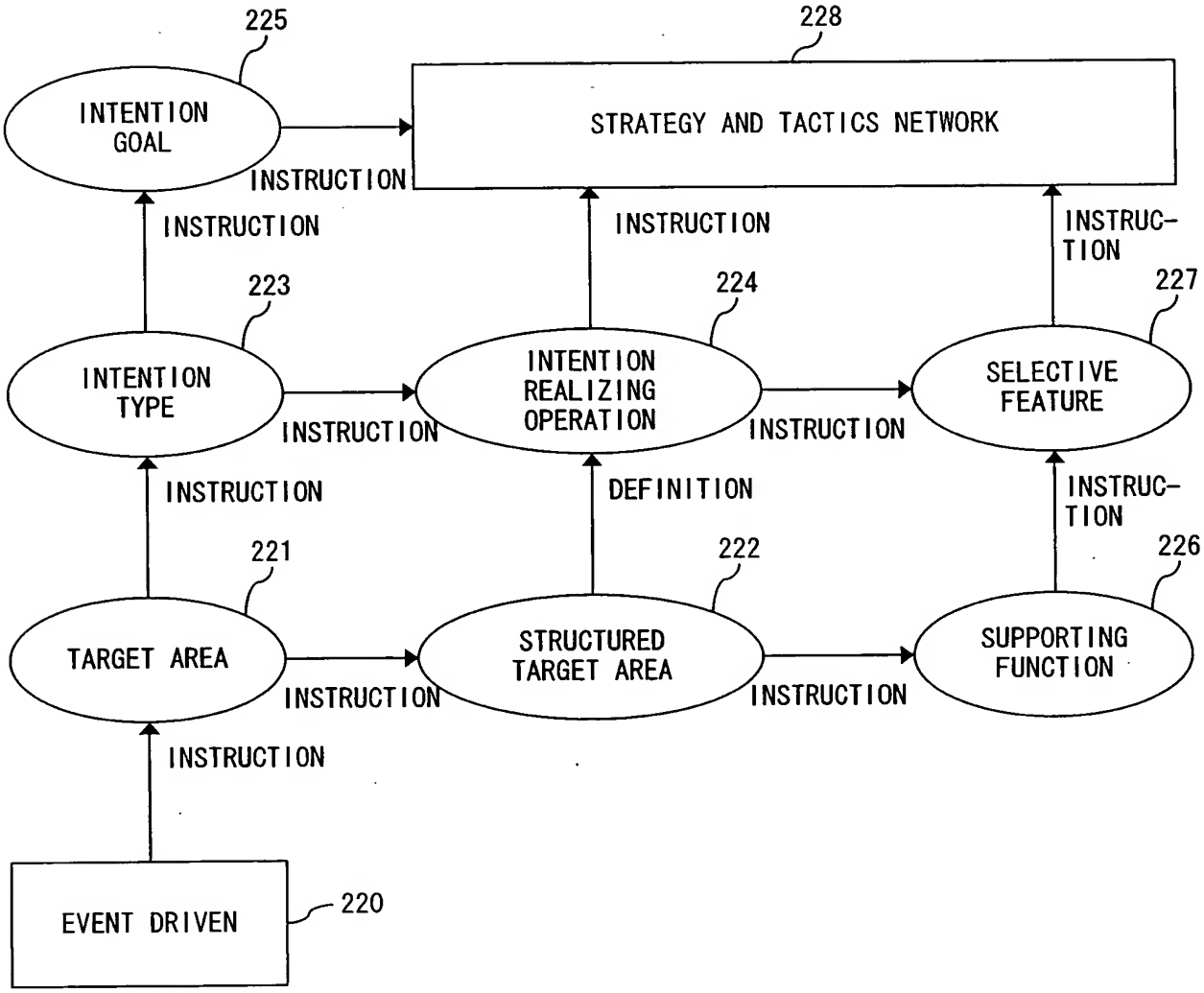

225
228
INTENTION GOAL
STRATEGY AND TACTICS NETWORK
INSTRUCTION
INSTRUCTION
INSTRUCTION
INSTRUC-TION
223
224
227
INTENTION TYPE
INTENTION REALIZING OPERATION
SELECTIVE FEATURE
INSTRUCTION
INSTRUCTION
INSTRUCTION
DEFINITION
INSTRUC-TION
221
222
226
TARGET AREA
STRUCTURED TARGET AREA
SUPPORTING FUNCTION
INSTRUCTION
INSTRUCTION
INSTRUCTION
EVENT DRIVEN
220

FIG. 35

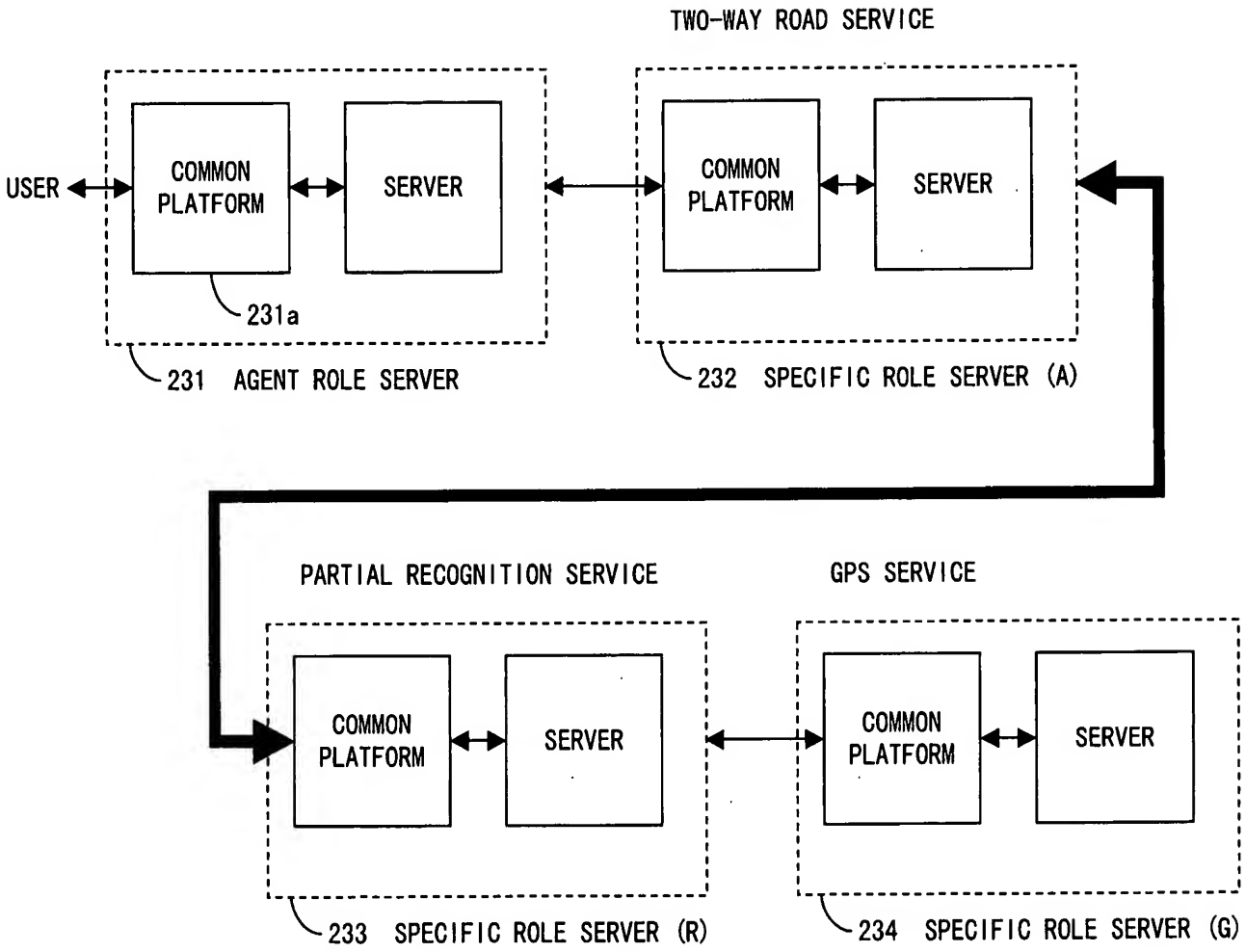

TWO-WAY ROAD SERVICE
USER
COMMON PLATFORM
SERVER
231a
231 AGENT ROLE SERVER
COMMON PLATFORM
SERVER
232 SPECIFIC ROLE SERVER (A)
PARTIAL RECOGNITION SERVICE
GPS SERVICE
COMMON PLATFORM
SERVER
233 SPECIFIC ROLE SERVER (R)
COMMON PLATFORM
SERVER
234 SPECIFIC ROLE SERVER (G)

FIG. 36

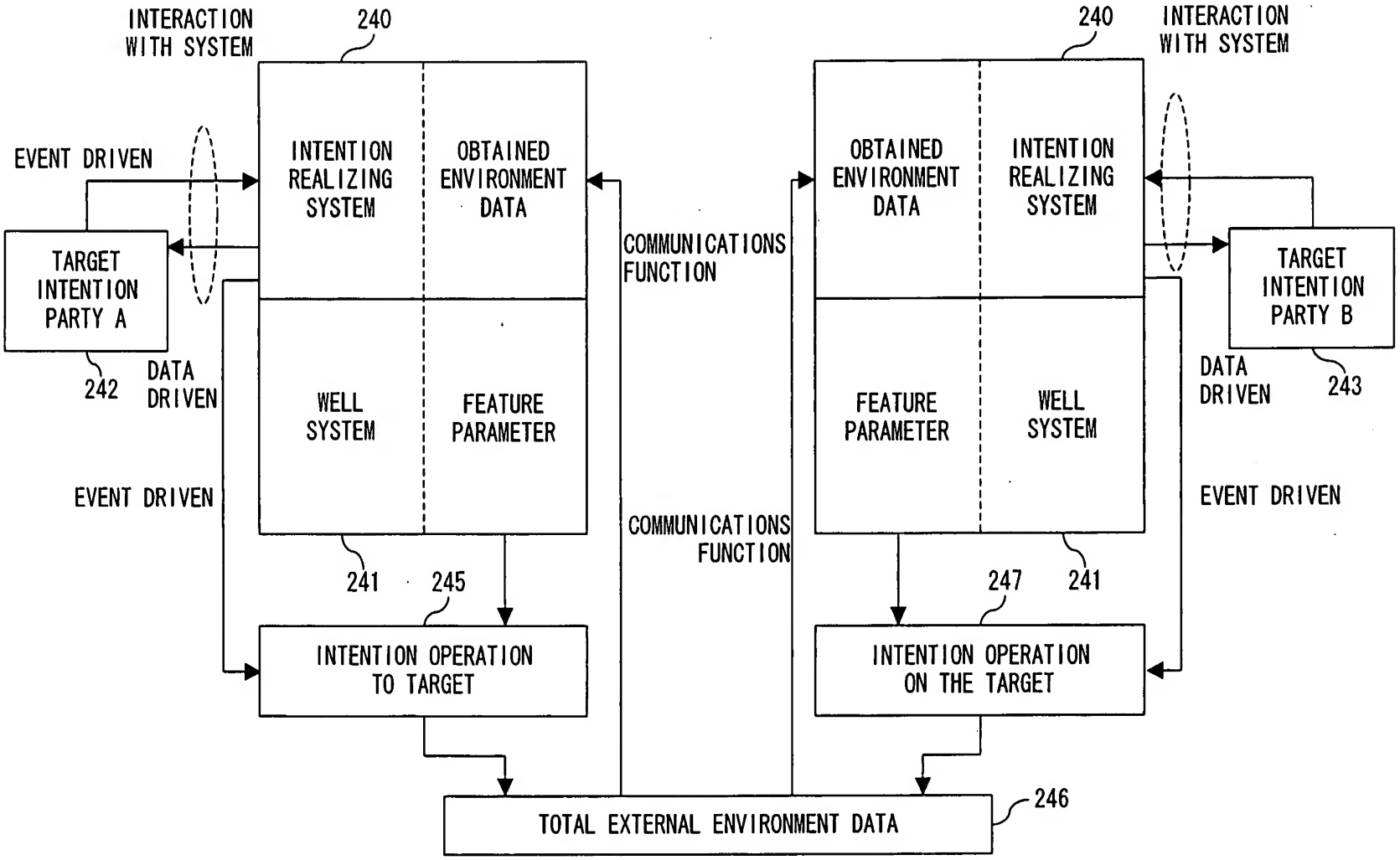

INTERACTION WITH SYSTEM
240
INTENTION REALIZING SYSTEM
OBTAINED ENVIRONMENT DATA
EVENT DRIVEN
TARGET INTENTION PARTY A
242
DATA DRIVEN
WELL SYSTEM
FEATURE PARAMETER
EVENT DRIVEN
241
245
INTENTION OPERATION TO TARGET
COMMUNICATIONS FUNCTION
COMMUNICATIONS FUNCTION
240
INTERACTION WITH SYSTEM
OBTAINED ENVIRONMENT DATA
INTENTION REALIZING SYSTEM
TARGET INTENTION PARTY B
DATA DRIVEN
243
FEATURE PARAMETER
WELL SYSTEM
EVENT DRIVEN
247
241
INTENTION OPERATION ON THE TARGET
TOTAL EXTERNAL ENVIRONMENT DATA
246

FIG. 37

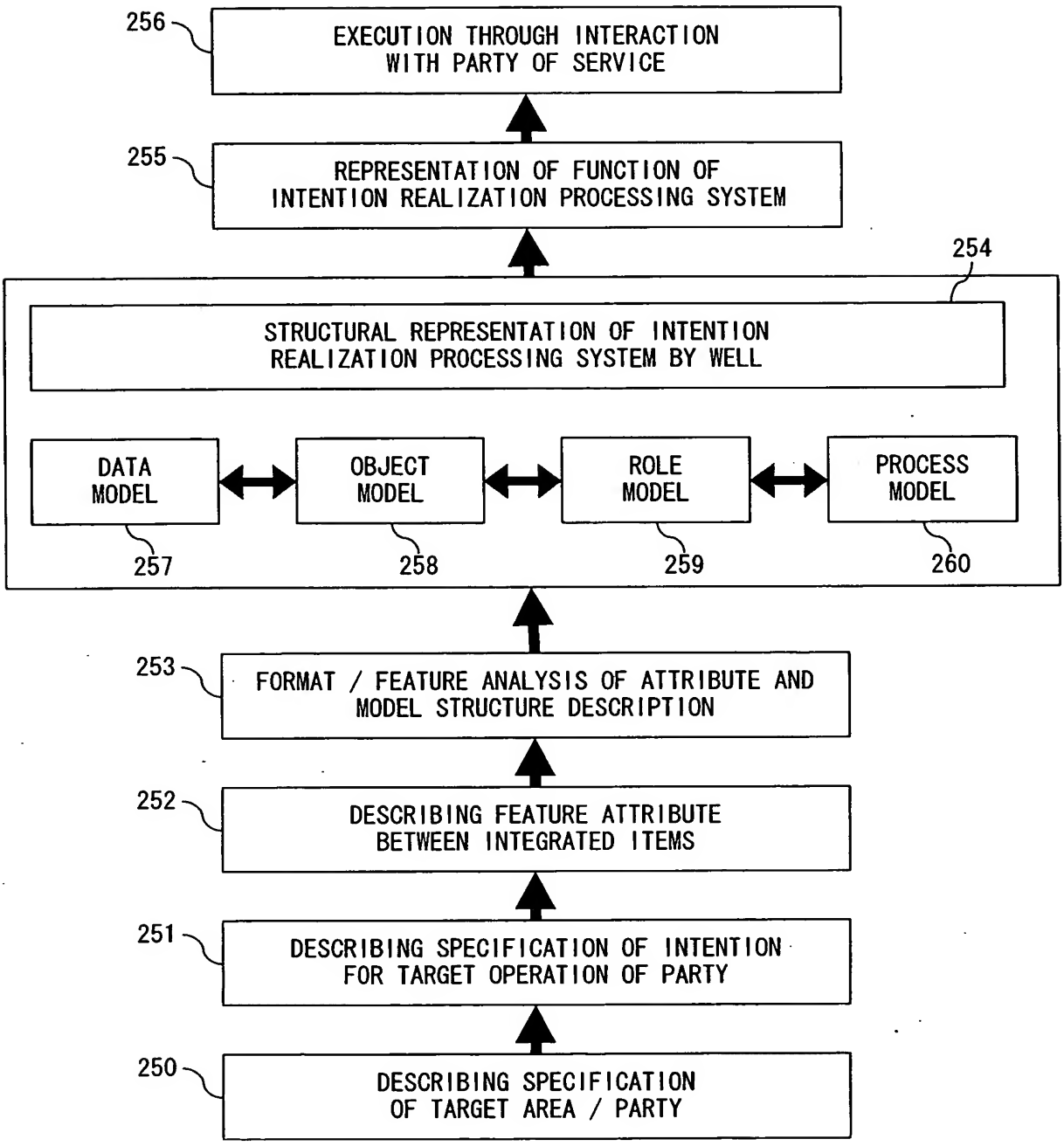

256
EXECUTION THROUGH INTERACTION WITH PARTY OF SERVICE
255
REPRESENTATION OF FUNCTION OF INTENTION REALIZATION PROCESSING SYSTEM
254
STRUCTURAL REPRESENTATION OF INTENTION REALIZATION PROCESSING SYSTEM BY WELL
DATA MODEL
OBJECT MODEL
ROLE MODEL
PROCESS MODEL
257
258
259
260
253
FORMAT / FEATURE ANALYSIS OF ATTRIBUTE AND MODEL STRUCTURE DESCRIPTION
252
DESCRIBING FEATURE ATTRIBUTE BETWEEN INTEGRATED ITEMS
251
DESCRIBING SPECIFICATION OF INTENTION FOR TARGET OPERATION OF PARTY
250
DESCRIBING SPECIFICATION OF TARGET AREA / PARTY

FIG. 38

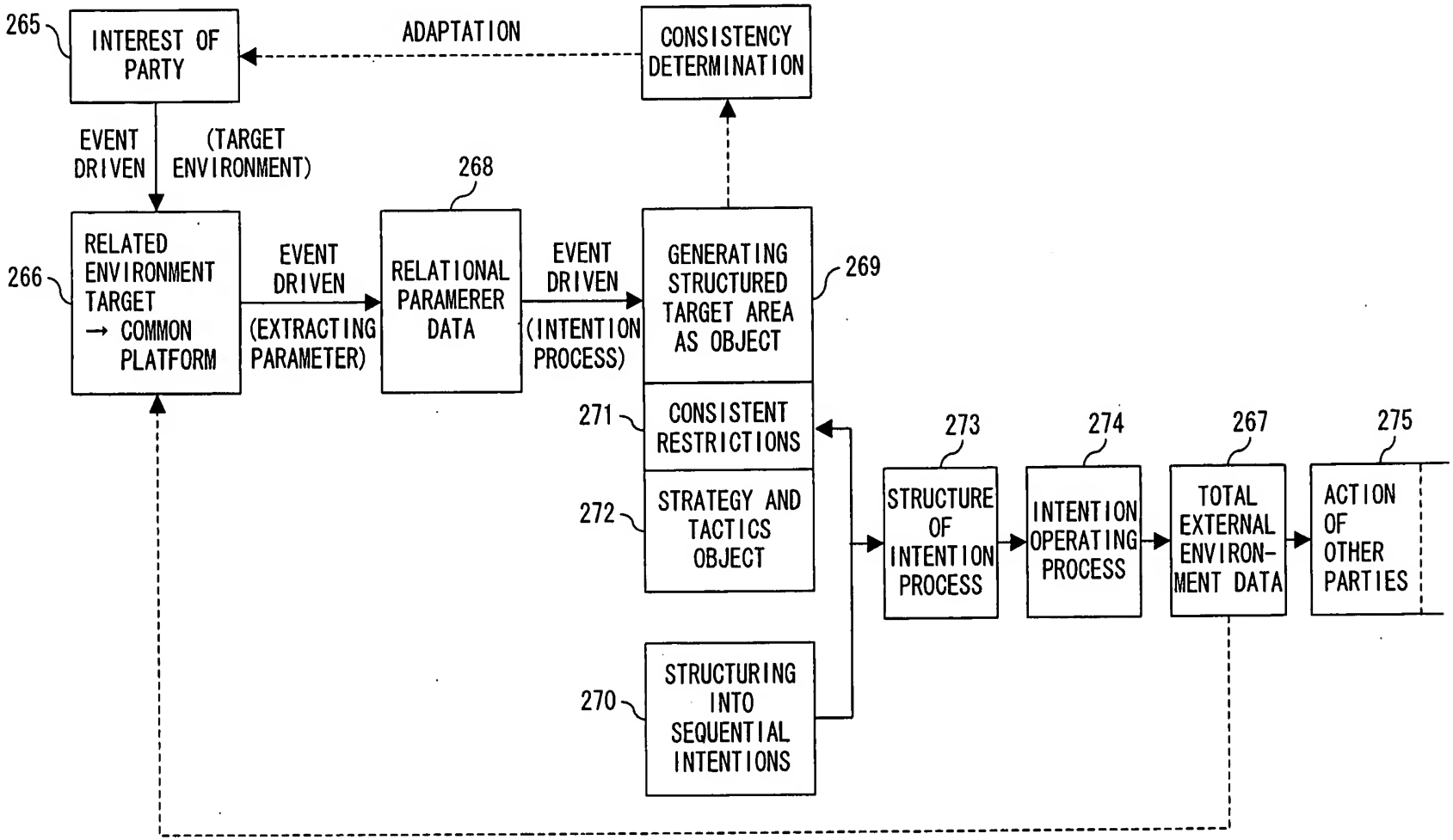

265
INTEREST OF PARTY
ADAPTATION
CONSISTENCY DETERMINATION
EVENT DRIVEN
(TARGET ENVIRONMENT)
268
266
RELATED ENVIRONMENT TARGET → COMMON PLATFORM
EVENT DRIVEN
(EXTRACTING PARAMETER)
RELATIONAL PARAMERER DATA
EVENT DRIVEN
(INTENTION PROCESS)
GENERATING STRUCTURED TARGET AREA AS OBJECT
269
271
CONSISTENT RESTRICTIONS
272
STRATEGY AND TACTICS OBJECT
270
STRUCTURING INTO SEQUENTIAL INTENTIONS
273
STRUCTURE OF INTENTION PROCESS
274
INTENTION OPERATING PROCESS
267
TOTAL EXTERNAL ENVIRON-MENT DATA
275
ACTION OF OTHER PARTIES

FIG. 39

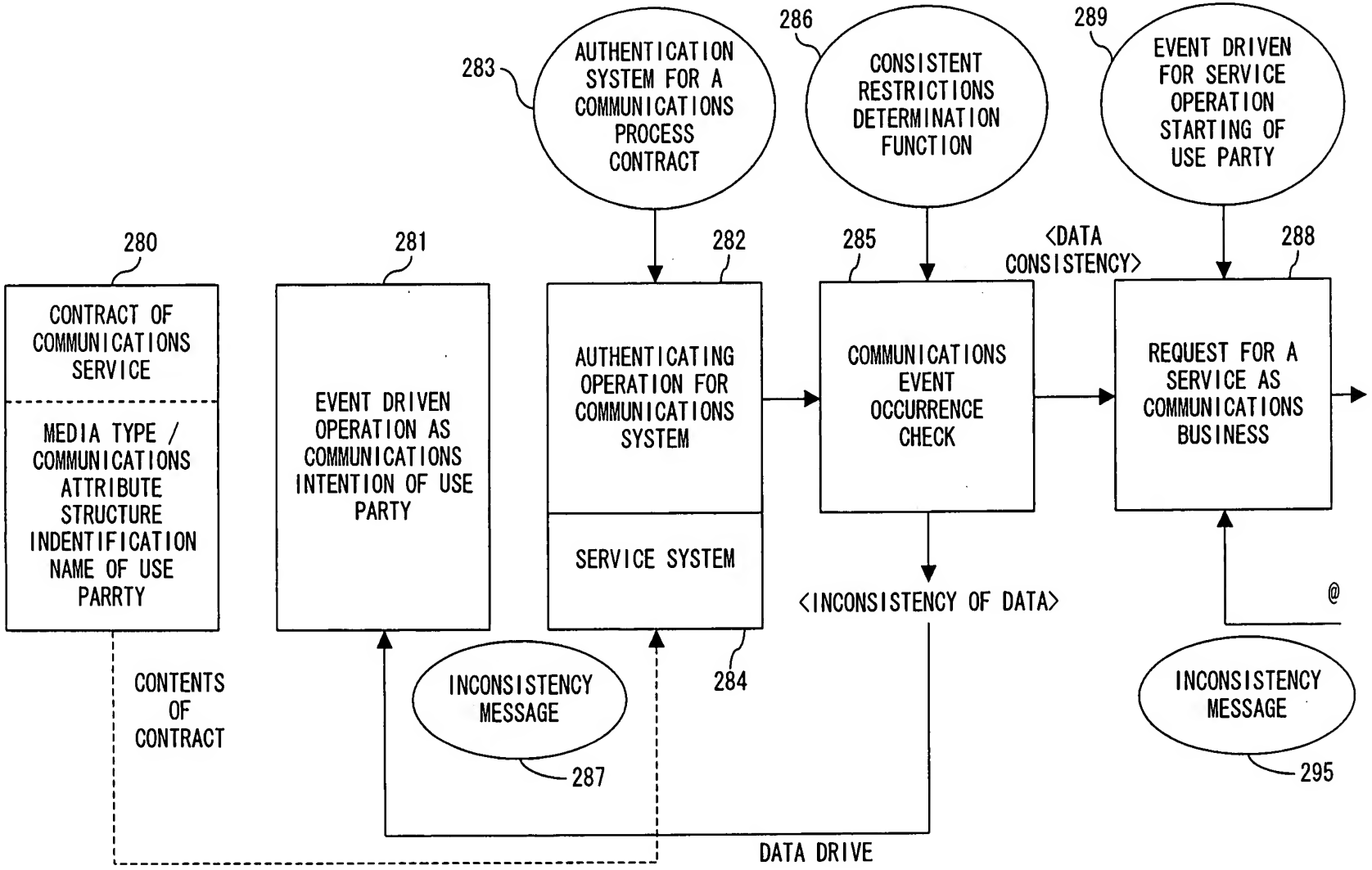

283
AUTHENTICATION SYSTEM FOR A COMMUNICATIONS PROCESS CONTRACT
286
CONSISTENT RESTRICTIONS DETERMINATION FUNCTION
289
EVENT DRIVEN FOR SERVICE OPERATION STARTING OF USE PARTY
280
CONTRACT OF COMMUNICATIONS SERVICE
MEDIA TYPE / COMMUNICATIONS ATTRIBUTE STRUCTURE INDENTIFICATION NAME OF USE PARRTY
281
EVENT DRIVEN OPERATION AS COMMUNICATIONS INTENTION OF USE PARTY
282
AUTHENTICATING OPERATION FOR COMMUNICATIONS SYSTEM
SERVICE SYSTEM
285
<DATA CONSISTENCY>
COMMUNICATIONS EVENT OCCURRENCE CHECK
288
REQUEST FOR A SERVICE AS COMMUNICATIONS BUSINESS
<INCONSISTENCY OF DATA>
@
CONTENTS OF CONTRACT
INCONSISTENCY MESSAGE
287
284
INCONSISTENCY MESSAGE
295
DATA DRIVE

FIG. 40

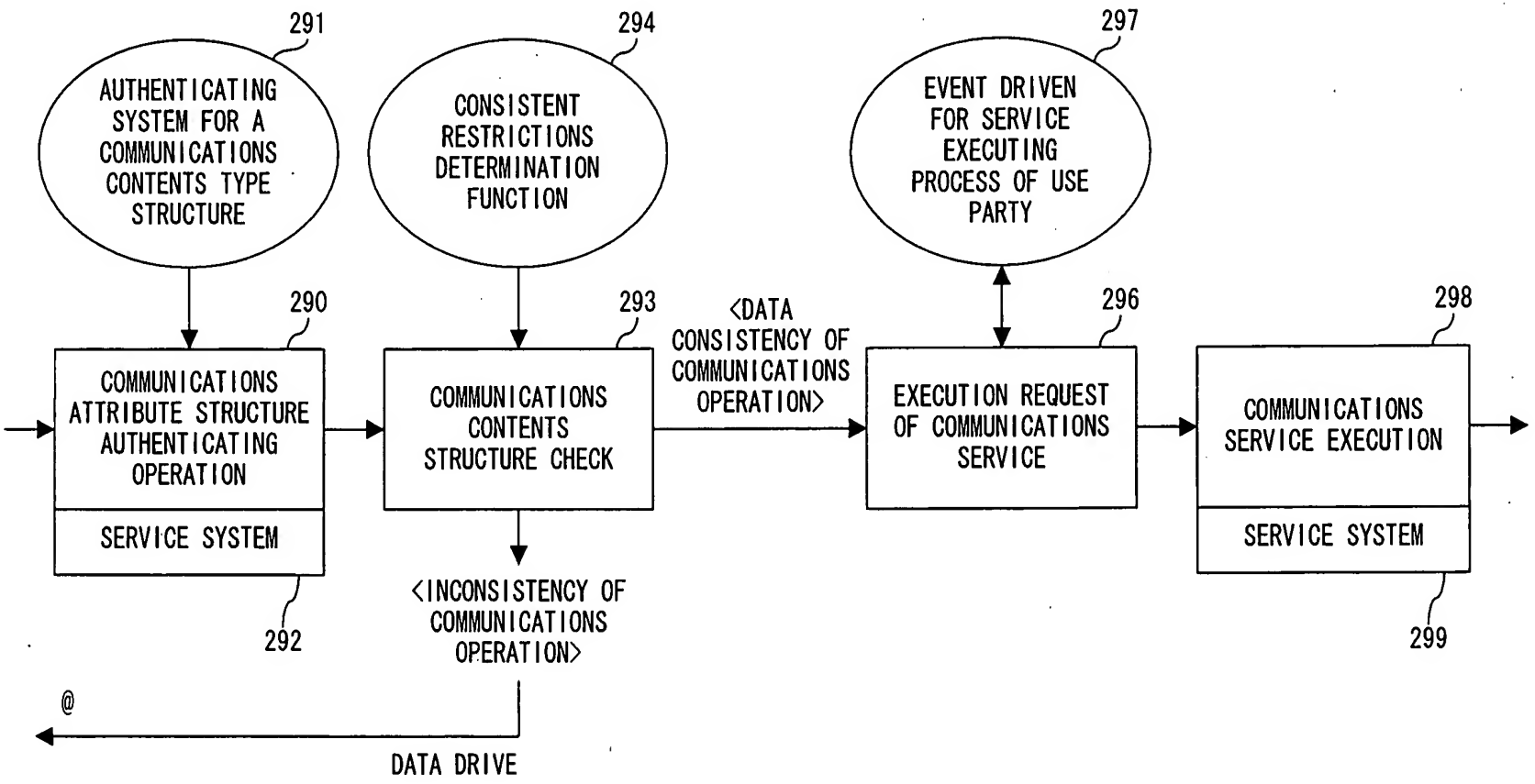

291
AUTHENTICATING SYSTEM FOR A COMMUNICATIONS CONTENTS TYPE STRUCTURE
294
CONSISTENT RESTRICTIONS DETERMINATION FUNCTION
297
EVENT DRIVEN FOR SERVICE EXECUTING PROCESS OF USE PARTY
290
COMMUNICATIONS ATTRIBUTE STRUCTURE AUTHENTICATING OPERATION
SERVICE SYSTEM
292
293
COMMUNICATIONS CONTENTS STRUCTURE CHECK
<INCONSISTENCY OF COMMUNICATIONS OPERATION>
<DATA CONSISTENCY OF COMMUNICATIONS OPERATION>
296
EXECUTION REQUEST OF COMMUNICATIONS SERVICE
298
COMMUNICATIONS SERVICE EXECUTION
SERVICE SYSTEM
299
@
DATA DRIVE

FIG. 41

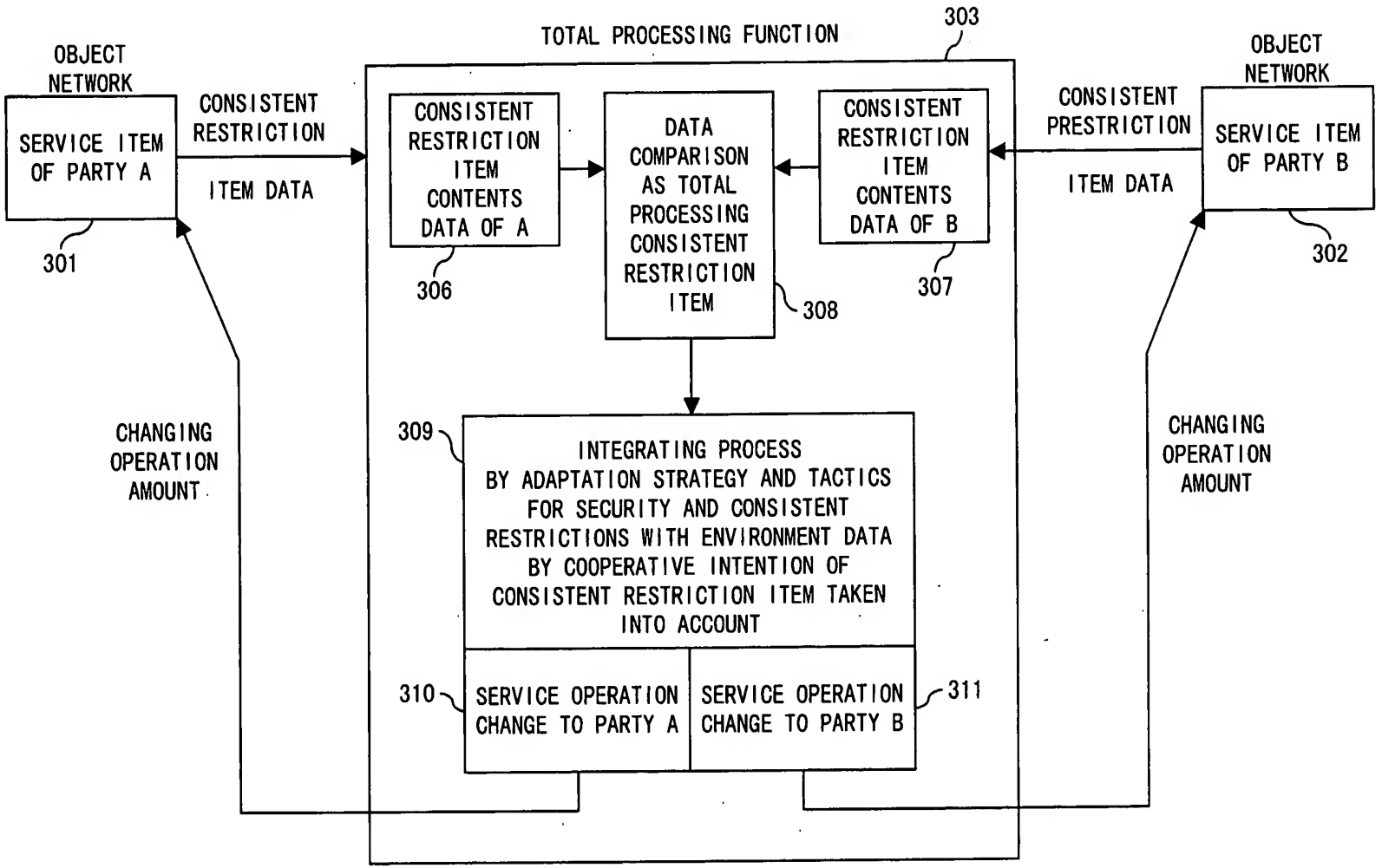

TOTAL PROCESSING FUNCTION
303
OBJECT NETWORK
SERVICE ITEM OF PARTY A
301
CONSISTENT RESTRICTION
ITEM DATA
CONSISTENT RESTRICTION ITEM CONTENTS DATA OF A
306
DATA COMPARISON AS TOTAL PROCESSING CONSISTENT RESTRICTION ITEM
308
CONSISTENT RESTRICTION ITEM CONTENTS DATA OF B
307
CONSISTENT PRESTRICTION
ITEM DATA
OBJECT NETWORK
SERVICE ITEM OF PARTY B
302
CHANGING OPERATION AMOUNT
CHANGING OPERATION AMOUNT
309
INTEGRATING PROCESS BY ADAPTATION STRATEGY AND TACTICS FOR SECURITY AND CONSISTENT RESTRICTIONS WITH ENVIRONMENT DATA BY COOPERATIVE INTENTION OF CONSISTENT RESTRICTION ITEM TAKEN INTO ACCOUNT
310
SERVICE OPERATION CHANGE TO PARTY A
SERVICE OPERATION CHANGE TO PARTY B
311

FIG. 42

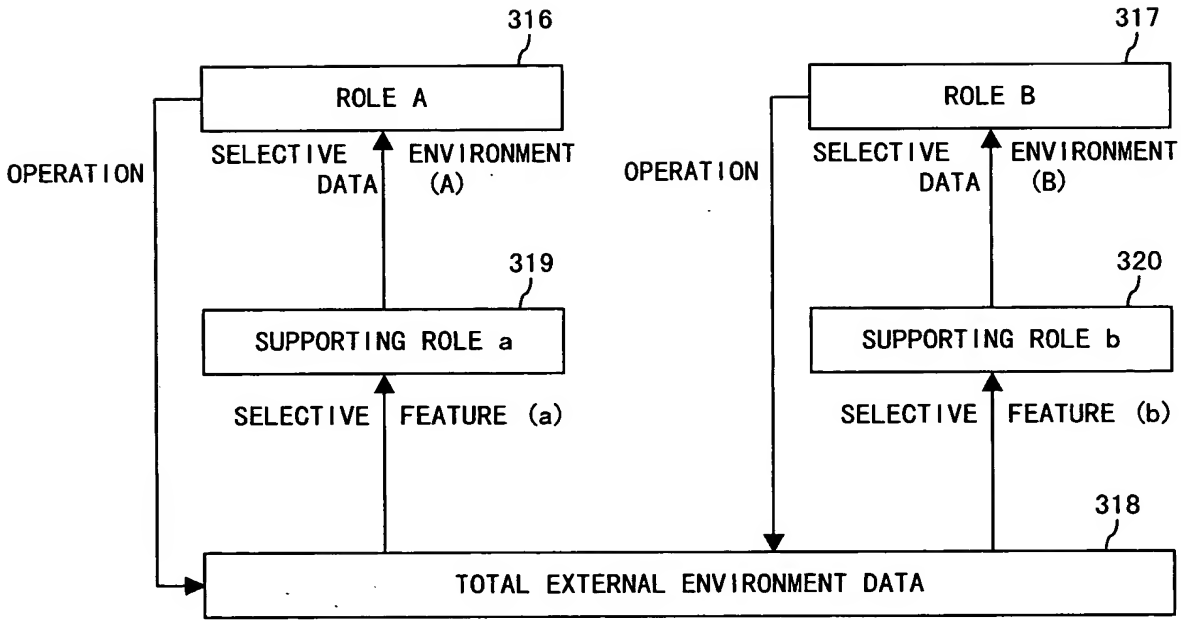

316
ROLE A
OPERATION
SELECTIVE DATA
ENVIRONMENT (A)
319
SUPPORTING ROLE a
SELECTIVE FEATURE (a)
317
ROLE B
OPERATION
SELECTIVE DATA
ENVIRONMENT (B)
320
SUPPORTING ROLE b
SELECTIVE FEATURE (b)
318
TOTAL EXTERNAL ENVIRONMENT DATA

FIG. 43

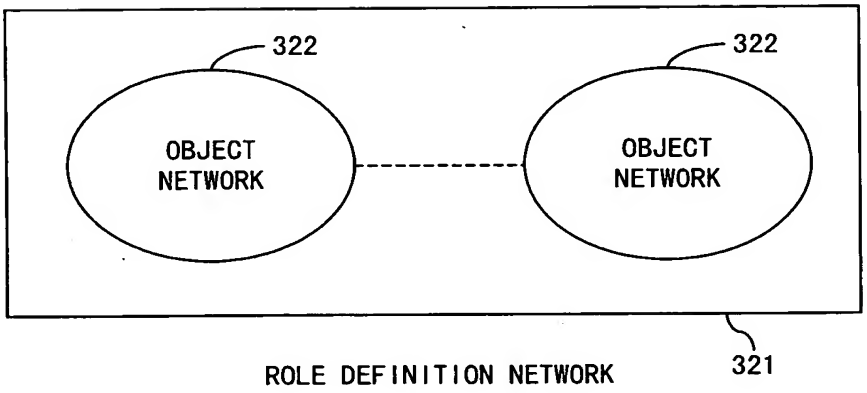

322
322
OBJECT NETWORK
OBJECT NETWORK
ROLE DEFINITION NETWORK
321

FIG. 44

STRUCTURE SERVICE		CONTROL PROCESS SERVICE		DATA STRUCTURE SERVICE		COMMUNICATIONS SERVICE	SIMULATION SERVICE
(1) REQUEST OF PARTY	(2) REQUEST OF SYSTEM	(3) CONTROL PROCESS	(4) CONSISTENCY PROCESS	(5) RETRIEVAL	(6) DATA COLLECTION	(7) COMMUNICATIONS (BROADCAST, TRANSMISSION)	(8) FOR DETERMINATION OF PARAMETER
EVENT DRIVEN	DATA DRIVEN	FORM/TIME CONTROL	CONSISTENT RESTRICTIONS	NAME MANAGEMENT	DATA MANAGEMENT GRAPH STRUCTURE EDITOR	COMMUNICATIONS BETWEEN PARTIES	EVALUATION

FIG. 45

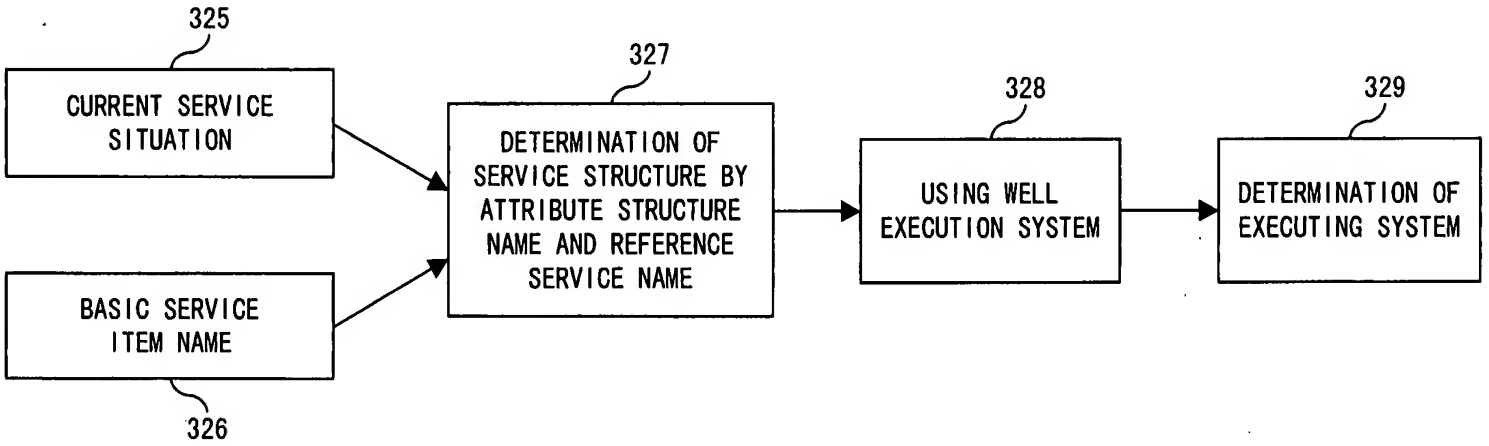

325
CURRENT SERVICE SITUATION
BASIC SERVICE ITEM NAME
326
327
DETERMINATION OF SERVICE STRUCTURE BY ATTRIBUTE STRUCTURE NAME AND REFERENCE SERVICE NAME
328
USING WELL EXECUTION SYSTEM
329
DETERMINATION OF EXECUTING SYSTEM

FIG. 46

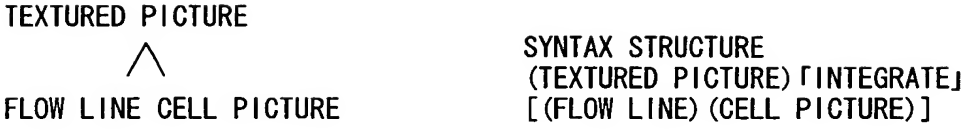

TEXTURED PICTURE
FLOW LINE CELL PICTURE
SYNTAX STRUCTURE
(TEXTURED PICTURE)「INTEGRATE」
[(FLOW LINE)(CELL PICTURE)]

FIG. 47

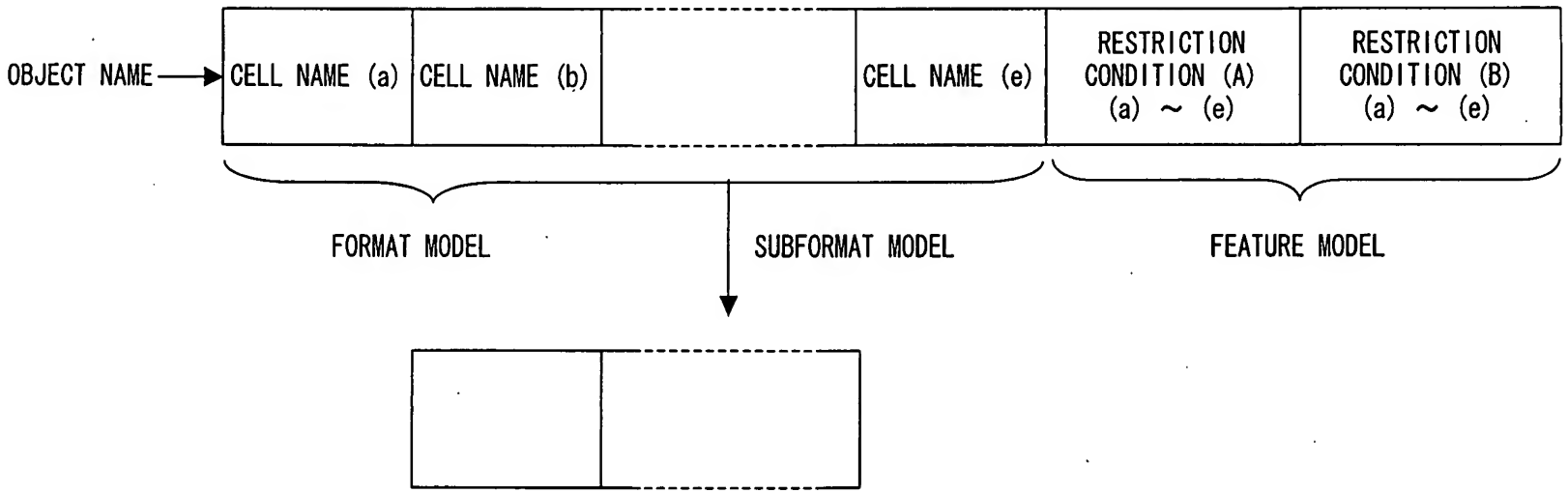

OBJECT NAME
CELL NAME (a)
CELL NAME (b)
CELL NAME (e)
RESTRICTION CONDITION (A) (a) ~ (e)
RESTRICTION CONDITION (B) (a) ~ (e)
FORMAT MODEL
SUBFORMAT MODEL
FEATURE MODEL

FIG. 48

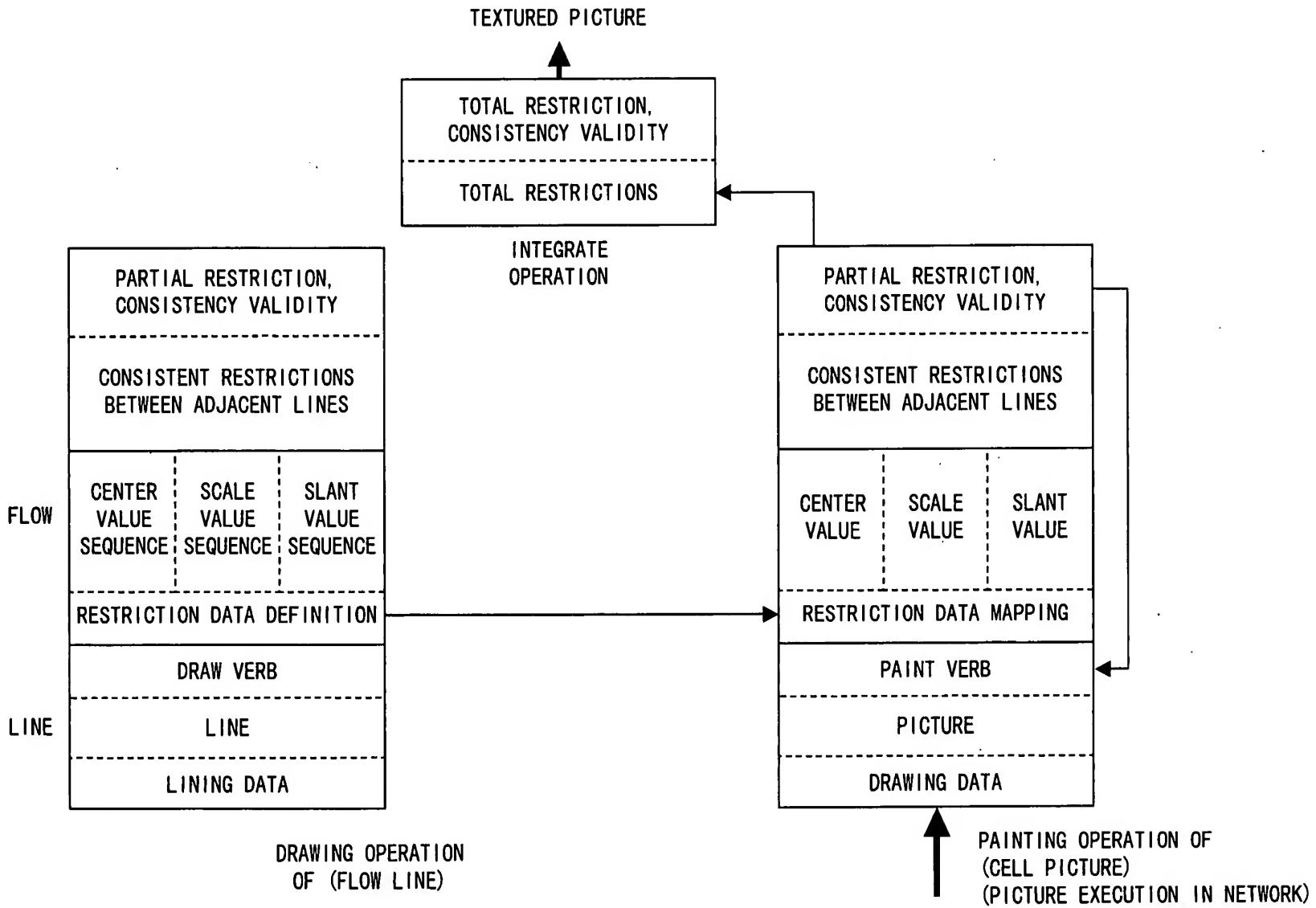
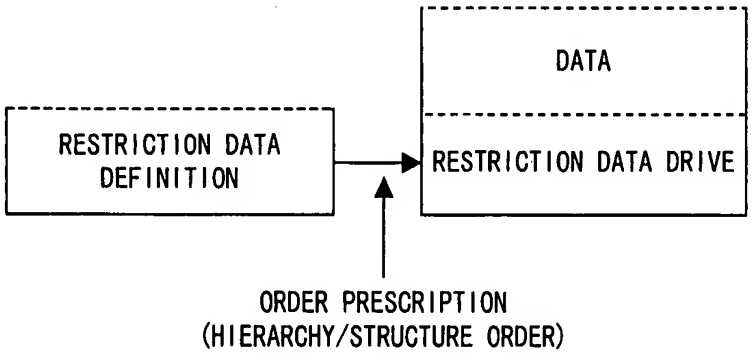
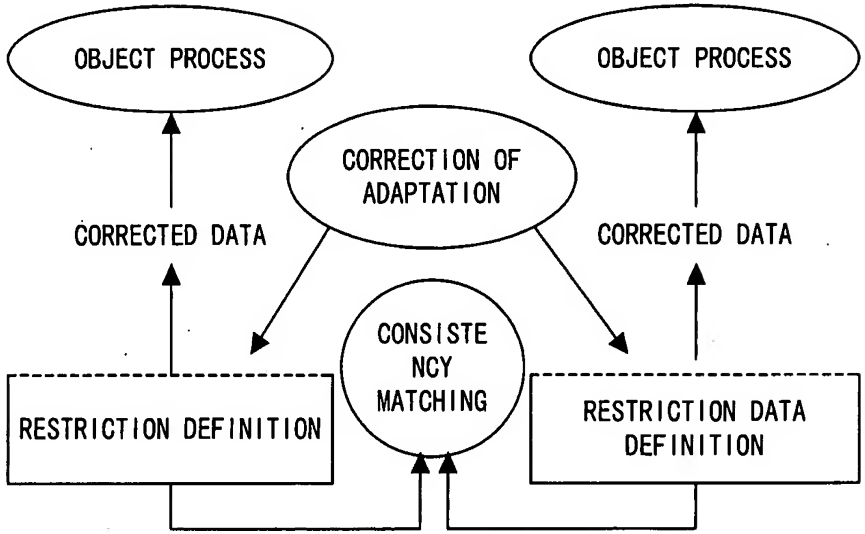

TEXTURED PICTURE
TOTAL RESTRICTION, CONSISTENCY VALIDITY
TOTAL RESTRICTIONS
INTEGRATE OPERATION
PARTIAL RESTRICTION, CONSISTENCY VALIDITY
CONSISTENT RESTRICTIONS BETWEEN ADJACENT LINES
FLOW
CENTER VALUE SEQUENCE
SCALE VALUE SEQUENCE
SLANT VALUE SEQUENCE
RESTRICTION DATA DEFINITION
DRAW VERB
LINE
LINE
LINING DATA
DRAWING OPERATION OF (FLOW LINE)
PARTIAL RESTRICTION, CONSISTENCY VALIDITY
CONSISTENT RESTRICTIONS BETWEEN ADJACENT LINES
CENTER VALUE
SCALE VALUE
SLANT VALUE
RESTRICTION DATA MAPPING
PAINT VERB
PICTURE
DRAWING DATA
PAINTING OPERATION OF (CELL PICTURE) (PICTURE EXECUTION IN NETWORK)

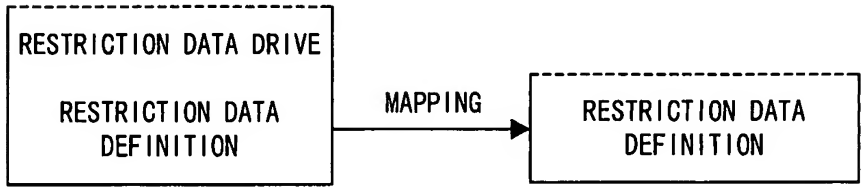
FIG. 49



(A) PROCESS BASED ON SYSTEM PRESCRIPTION



(B) MATCHING PROCESS



(C) PRIORITY PROCESS OF PRESENT DEFINITION

FIG. 50

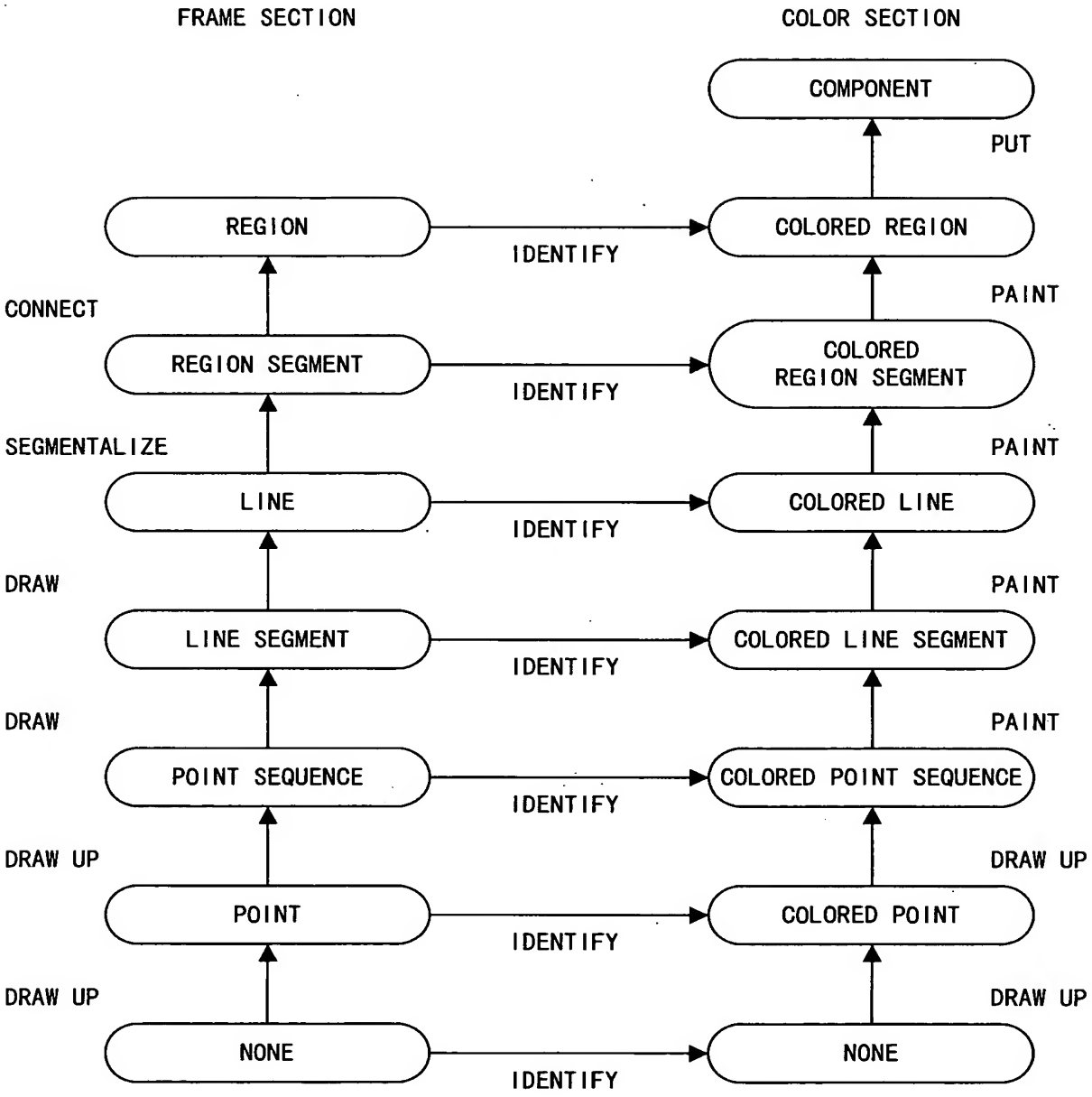

FRAME SECTION
COLOR SECTION
COMPONENT
PUT
REGION
IDENTIFY
COLORED REGION
CONNECT
PAINT
REGION SEGMENT
IDENTIFY
COLORED
REGION SEGMENT
SEGMENTALIZE
PAINT
LINE
IDENTIFY
COLORED LINE
DRAW
PAINT
LINE SEGMENT
IDENTIFY
COLORED LINE SEGMENT
DRAW
PAINT
POINT SEQUENCE
IDENTIFY
COLORED POINT SEQUENCE
DRAW UP
DRAW UP
POINT
IDENTIFY
COLORED POINT
DRAW UP
DRAW UP
NONE
IDENTIFY
NONE

FIG. 51

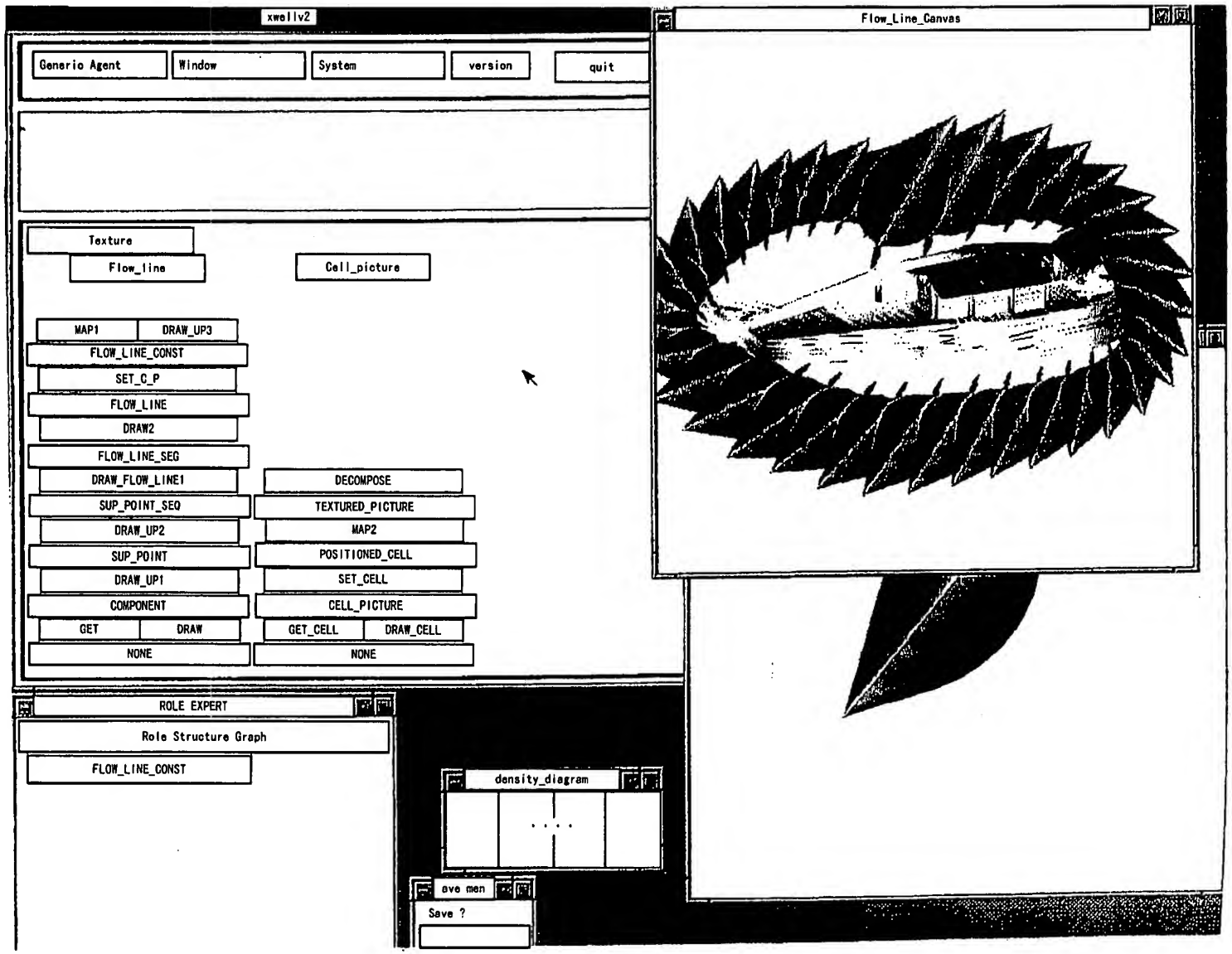

xwellv2
Generic Agent
Window
System
version
quit
Texture
Flow_line
Cell_picture
MAP1
DRAW_UP3
FLOW_LINE_CONST
SET_C_P
FLOW_LINE
DRAW2
FLOW_LINE_SEG
DRAW_FLOW_LINE1
SUP_POINT_SEQ
DRAW_UP2
SUP_POINT
DRAW_UP1
COMPONENT
GET
DRAW
NONE
DECOMPOSE
TEXTURED_PICTURE
MAP2
POSITIONED_CELL
SET_CELL
CELL_PICTURE
GET_CELL
DRAW_CELL
NONE
Flow_Line_Canvas
ROLE EXPERT
Role Structure Graph
FLOW_LINE_CONST
density_diagram
ave men
Save ?

FIG. 52

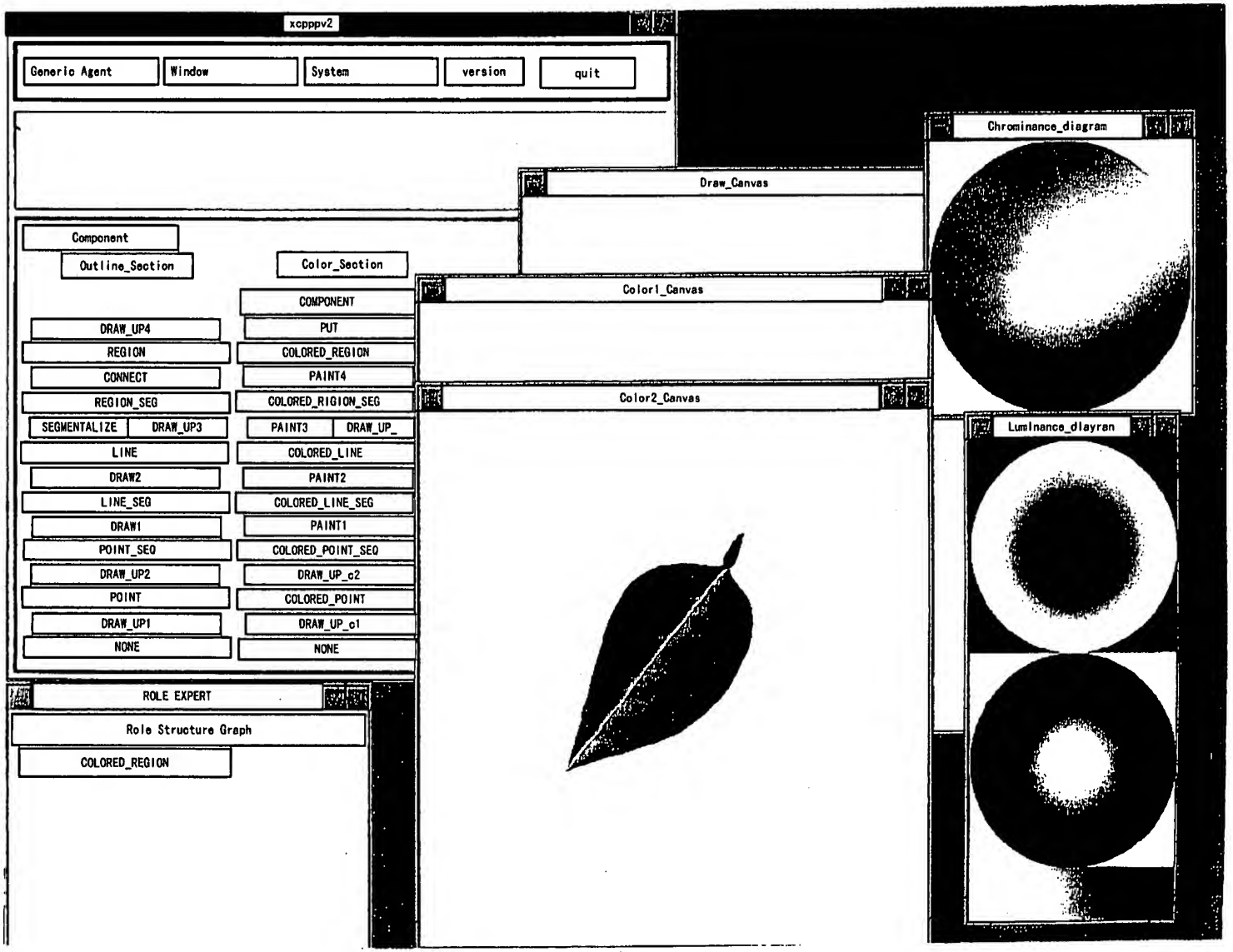

xcpppv2
Generic Agent
Window
System
version
quit
Component
Outline_Section
Color_Section
DRAW_UP4
REGION
CONNECT
REGION_SEG
SEGMENTALIZE
DRAW_UP3
LINE
DRAW2
LINE_SEQ
DRAW1
POINT_SEQ
DRAW_UP2
POINT
DRAW_UP1
NONE
COMPONENT
PUT
COLORED_REGION
PAINT4
COLORED_RIGION_SEG
PAINT3
DRAW_UP_
COLORED_LINE
PAINT2
COLORED_LINE_SEG
PAINT1
COLORED_POINT_SEQ
DRAW_UP_c2
COLORED_POINT
DRAW_UP_c1
NONE
ROLE EXPERT
Role Structure Graph
COLORED_REGION
Draw_Canvas
Color1_Canvas
Color2_Canvas
Chrominance_diagram
Luminance_diayran

FIG. 53

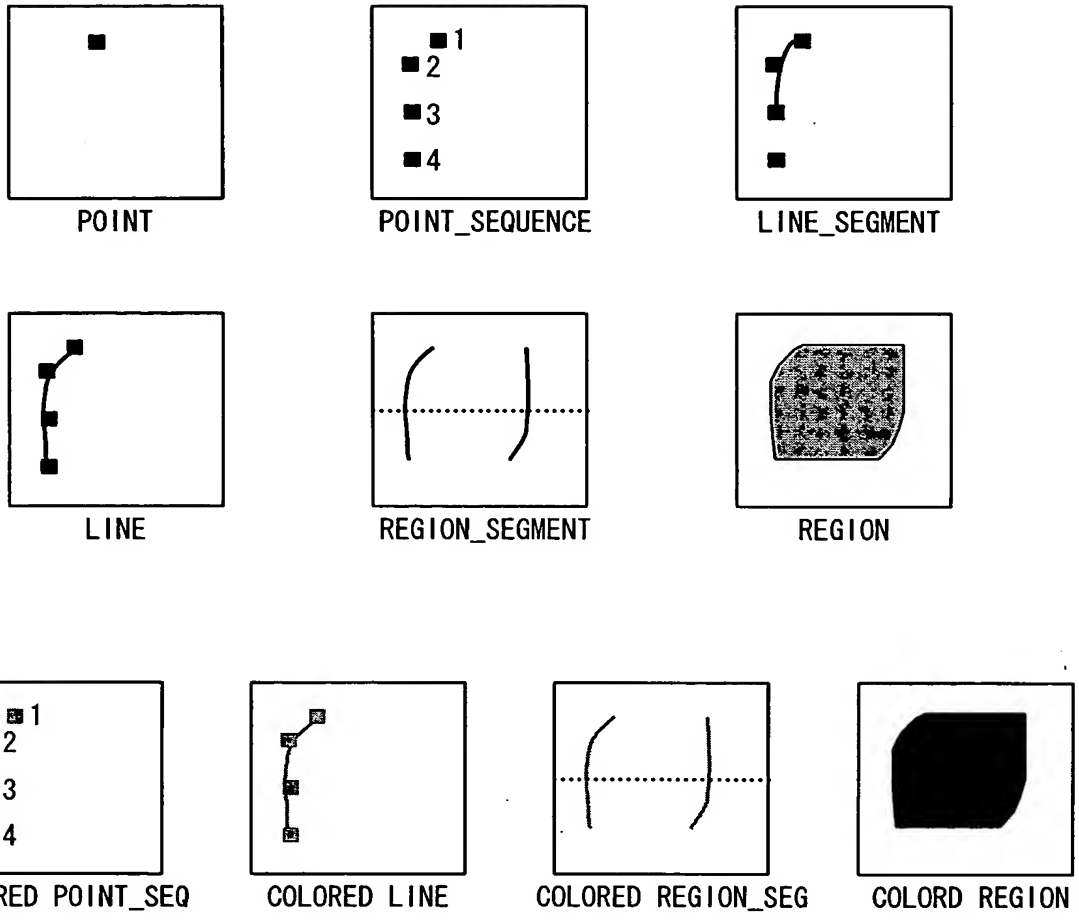

1
2
3
4
POINT
POINT_SEQUENCE
LINE_SEGMENT
LINE
REGION_SEGMENT
REGION
1
2
3
4
COLORED POINT_SEQ
COLORED LINE
COLORED REGION_SEG
COLORD REGION

FIG. 54

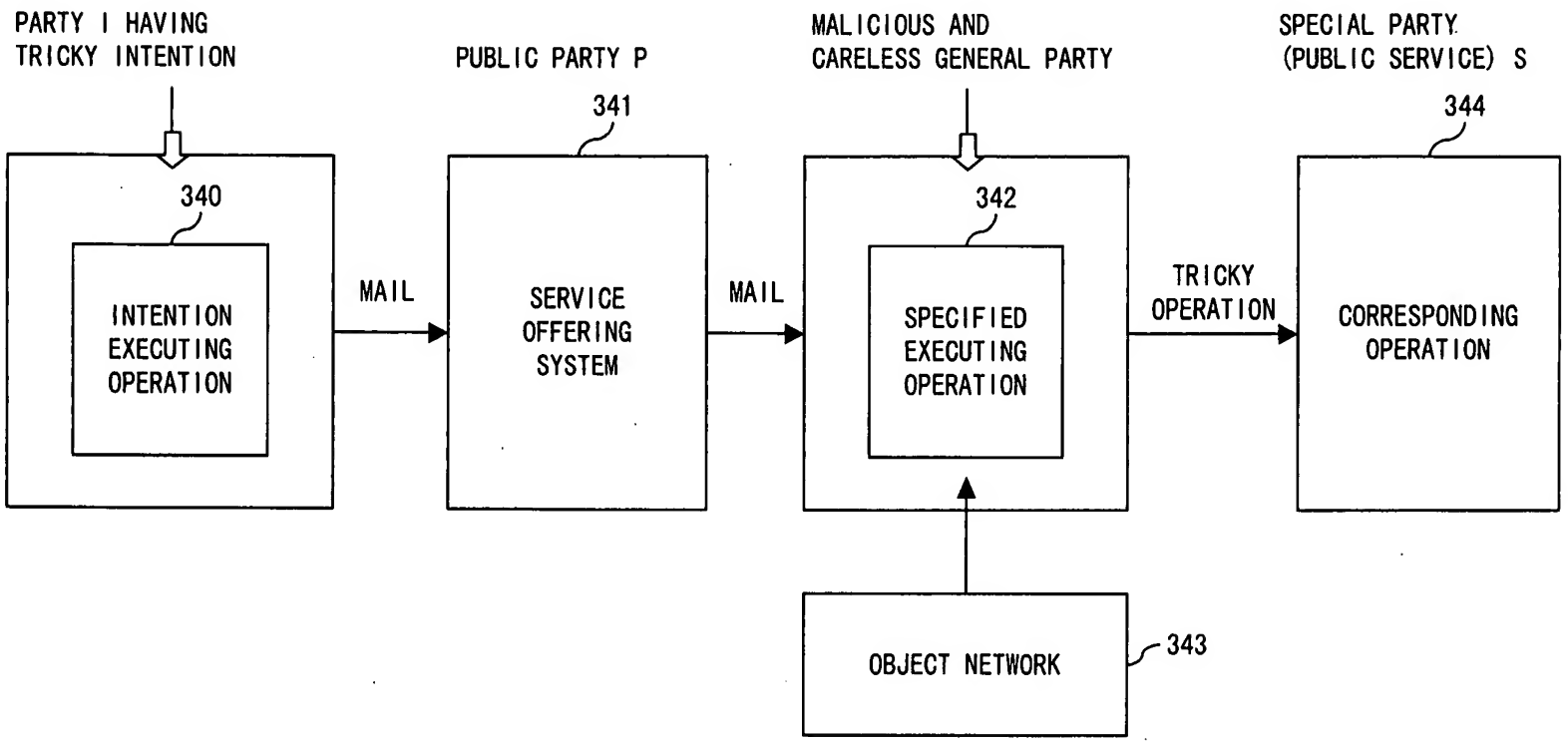

PARTY I HAVING TRICKY INTENTION
340
INTENTION EXECUTING OPERATION
MAIL
PUBLIC PARTY P
341
SERVICE OFFERING SYSTEM
MAIL
MALICIOUS AND CARELESS GENERAL PARTY
342
SPECIFIED EXECUTING OPERATION
OBJECT NETWORK
343
TRICKY OPERATION
SPECIAL PARTY (PUBLIC SERVICE) S
344
CORRESPONDING OPERATION

FIG. 55

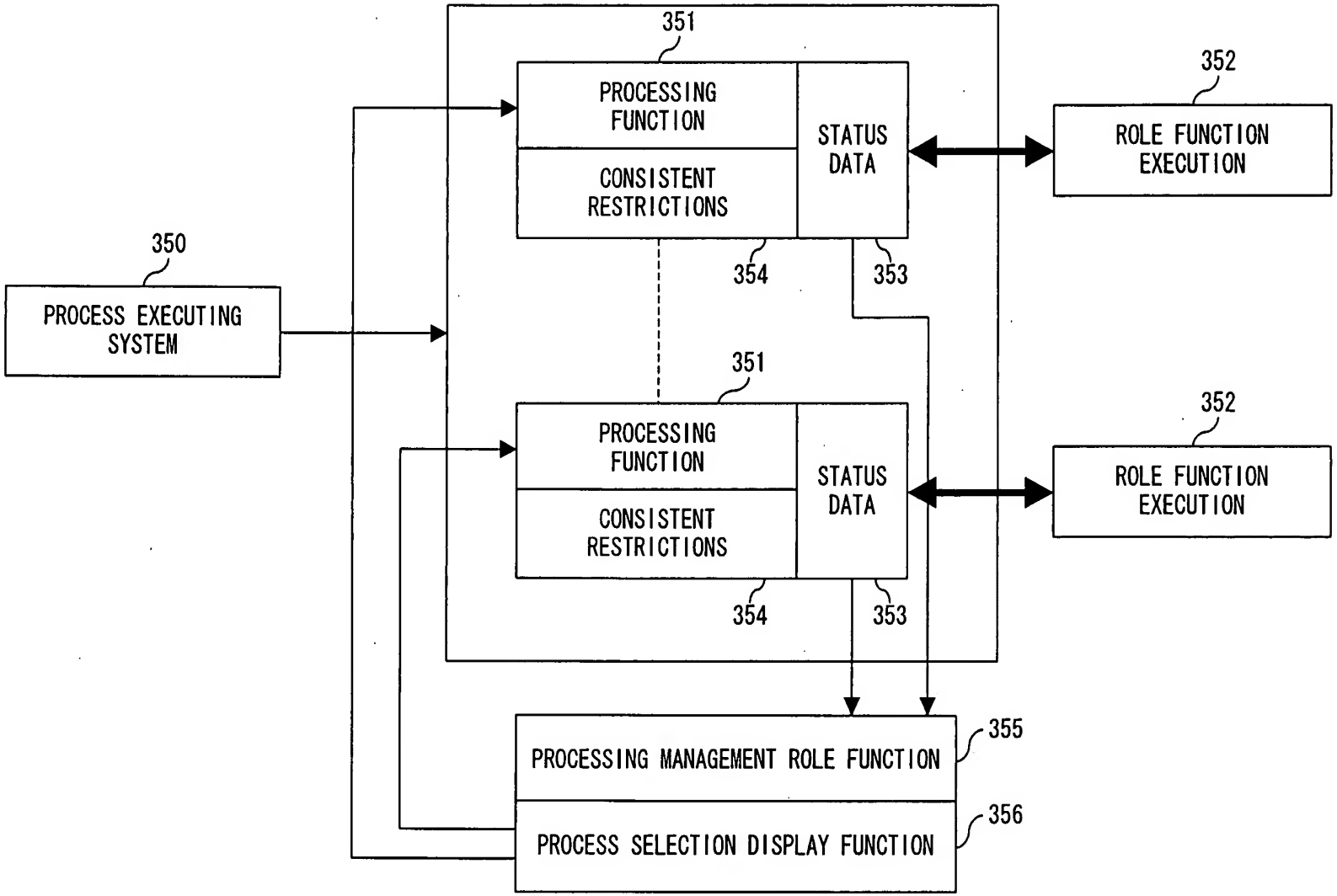

351
PROCESSING FUNCTION
CONSISTENT RESTRICTIONS
STATUS DATA
352
ROLE FUNCTION EXECUTION
350
PROCESS EXECUTING SYSTEM
354
353
351
PROCESSING FUNCTION
CONSISTENT RESTRICTIONS
STATUS DATA
352
ROLE FUNCTION EXECUTION
354
353
355
PROCESSING MANAGEMENT ROLE FUNCTION
356
PROCESS SELECTION DISPLAY FUNCTION

FIG. 56

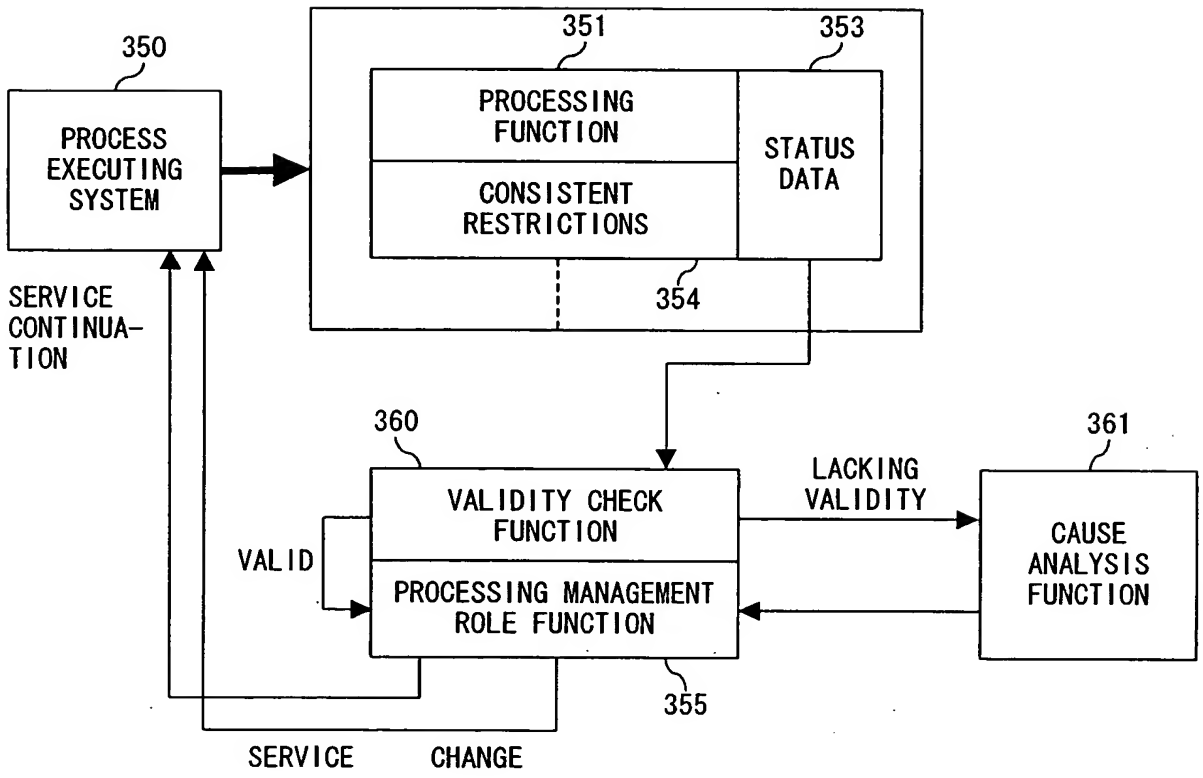

350
PROCESS EXECUTING SYSTEM
351
353
PROCESSING FUNCTION
CONSISTENT RESTRICTIONS
STATUS DATA
354
SERVICE CONTINUA-TION
360
VALIDITY CHECK FUNCTION
PROCESSING MANAGEMENT ROLE FUNCTION
VALID
LACKING VALIDITY
361
CAUSE ANALYSIS FUNCTION
355
SERVICE
CHANGE

FIG. 57

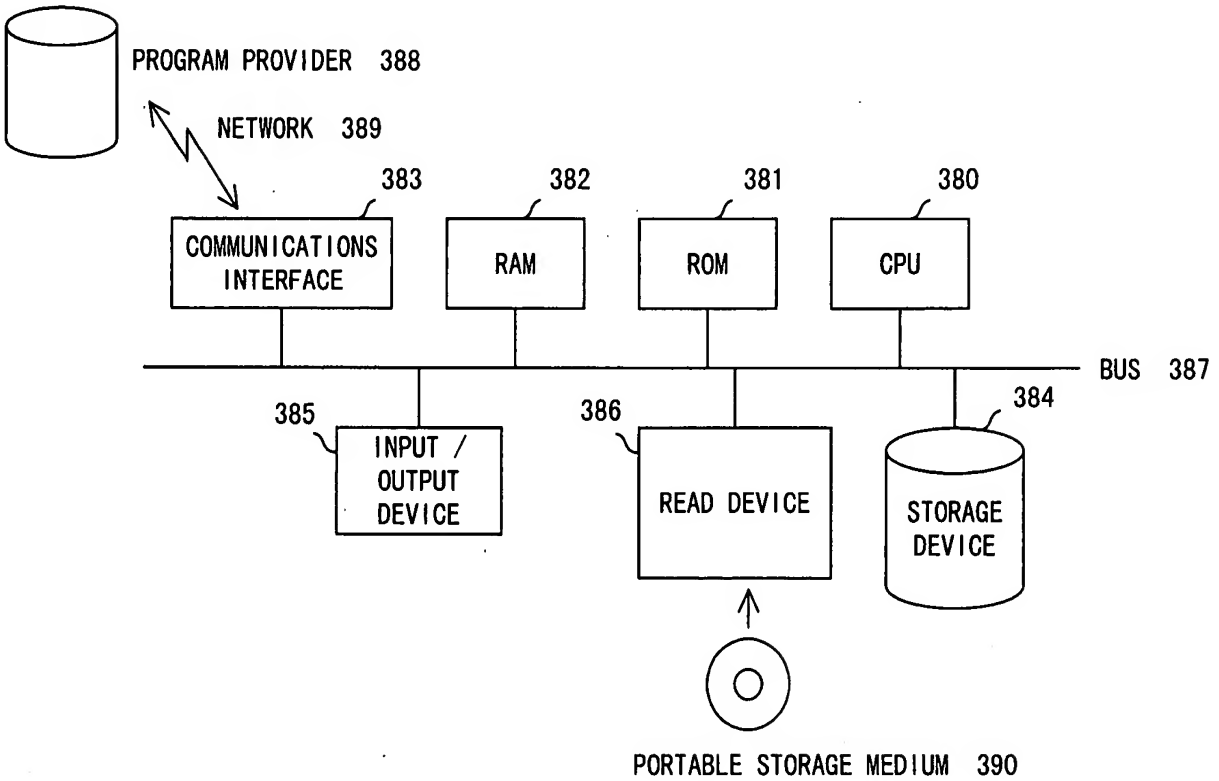

PROGRAM PROVIDER 388
NETWORK 389
383
382
381
380
COMMUNICATIONS INTERFACE
RAM
ROM
CPU
BUS 387
385
386
384
INPUT / OUTPUT DEVICE
READ DEVICE
STORAGE DEVICE
PORTABLE STORAGE MEDIUM 390

FIG. 58